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A Course of Lectures
ON
THE NATURE AND TREATMENT OF DEFORMITIES.

DELIVERED AT THE ROYAL ORTHOPÆDIC HOSPITAL, MAY 1860.

BY

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LECTURE III.

TALIPES VARUS CONGENITUS.

GENTLEMEN,—To-day I propose for consideration talipes varus, another of the deformities or permanent malpositions to which the ankle-joint is liable, and by far the most common deformity met with in this articulation. In the 10,000 cases of deformity to which I have before referred, 688 were cases of congenital varus. Of these, 363 were affected in both feet; 182 in the right foot only, in 2 of which there was also talipes calcaneus of the left foot, and in 2 others congenital contraction of the knees; 138 in the left foot, in 2 of which there was spina bifida, in 1 the wrists and fingers were also congenitally contracted, 1 had malformation of the toes, and 1 talipes valgus of the right foot, 1 contraction of both hands, and in others both knees were contracted.

By talipes varus, then, you will understand a contraction of the gastrocnemius to its full extent, with contraction of the anterior and posterior tibial muscles (the direct adductors of the foot), combined with a semi-rotation of the anterior half of the foot; and, in confirmed cases, contraction and shortening of the fascia and ligaments of the sole. In adult cases, there is invariably a great increase in the transverse arch of the foot, occasioned by the pressure of the weight of the body forcing the fifth and fourth metatarsal bones inwards, and bringing them nearly to the metatarsal bone of the great toe (Figs. 8 and 9).

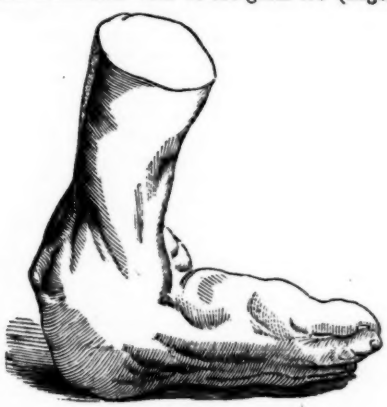

Fig. 8.

In young patients, there is frequently a congenital increase in the longitudinal arch, which shortens the foot without muscular contraction, the ligaments only being contracted.

The *anatomical peculiarities* of talipes varus are these. The os calcis, instead of occupying a longitudinal position, is found to be perpendicular; the astragalus is nearly out of its articular cavity, as in extreme talipes equinus; the os cuboides is approximated to the internal malleolus, with a greater or less separation from the astragalus on its outer side; the fourth and fifth metatarsal bones are slightly separated on the outer side from the os cuboides. The anterior half of the foot retains its natural position, so far as the bones are concerned. The powerful liga-

Fig. 9.

ments of the sole become stretched and elongated in one direction, and contracted in the other; and the internal lateral ligament, and those on the dorsum of the foot, suffer in a similar manner, from the change in the natural and proper relative position of the bones.

Here is a valuable illustration of a very important fact, of which we have many similar evidences; viz., that the ligaments will yield and become elongated when subjected for any length of time to an amount of pressure beyond that which, in the proper condition and ordinary exercise of an articulation, they would be called upon to bear; and that if, on the other hand, the ligaments are, by a change in the position of a joint, confined to a more limited range than in the natural position, those ligaments will contract upon themselves, and become obstacles to the restoration of the position. This is of vast importance, as a powerful influence is thus exerted upon the articulation, not only in cases of deformity, but under various circumstances where no deformity exists.

This innate power of contraction materially assists in perfecting the cure in all cases which admit of it; constituting, indeed, an indispensable auxiliary; for it renders permanently effectual means which would otherwise be but partially successful in the removal of deformity. In those cases which, owing to the existence of paralysis of a muscle or muscles, do not admit of cure, it performs a still more important part—namely, that of affording to the articulation efficient and constant support, without which no patient afflicted with paralysis could with impunity suspend the use of artificial supports, either for relief from the restraint of wearing them, or even for temporary rest after the active duties of the day have ceased.

The muscles which are found to be contracted in talipes varus, and which are the direct cause in maintaining the deformity, are—1, the gastrocnemius; 2, the tibialis anticus, and the tibialis posticus. Those which act secondarily or indirectly are the extensor and flexor longus pollicis, from their proximity to the inner side of the foot; and, in a less degree, the extensor and flexor communis digitorum. What has been said of the contraction of the ligaments does not apply to infants, as a rule; there are, however, even in very young patients, some severe cases in which the ligaments are also contracted.

There is no paralysis in congenital talipes varus. In the non-congenital, it is commonly met with; but I have never seen a congenital case in which there was loss of power. The muscles in the infant born with this deformity are moderately well developed, as several opportunities of examination after death have proved. As the child grows, however, if the deformity is allowed to continue, the muscles do suffer from dimi-

nished development, owing to the absence of exercise; as, in this deformity, there is scarcely any available motion to call forth the use of the muscles, although they retain their healthy functions. The limb thus affected is therefore atrophied throughout its entire extent, more especially below the knee. The condyles of the femur, at first sight, present an appearance of enlargement, which is owing solely to the diminished size of the muscles.

In the infant, as a rule, the foot is simply inverted, and presents an uniformly round appearance, the anterior half being perfect; *i. e.*, the bones and ligaments are in their natural and proper relative positions (Fig. 10). In the adult, however,

Fig. 10.

there is more or less thickening of the cellular tissue covering the points which are subjected to pressure in walking. The anterior half of the foot is forced upwards by this pressure, and is often entirely off the ground beyond the point trodden upon, which gives the appearance of increased deformity. The plantar fascia is rarely affected in infancy, whilst in adults it is commonly contracted.

Cause. The cause of congenital talipes varus is next to be considered. An authority upon this subject has stated that there is a "structural shortening of the muscles contracted", by which can only be understood an organic alteration, having for its result a diminished development, and therefore a malformation. So far as my means of observation have extended, they do not warrant the adoption of such a conclusion. I have examined several cases after death; one a child three months old, who died from hydrocephalus, and who had not been operated upon, in consequence of the existence of that disease. In this case, the bones were all of their proper relative size and proportions, having their proper articulating surfaces, the only change being the malposition. The muscles, as far as could be observed with the naked eye, presented a perfectly healthy appearance, and possessed the natural proportions and development. Another of the cases I thus examined was a child sixteen months old, upon whom I had operated eight months previously. The foot was perfectly cured of the deformity, and the child had used it freely without artificial support; nor was there the slightest evidence of any tendency to return to the malposition. Upon dissecting off the skin and cellular tissue, I could discover no trace of a cicatrix, either in the tendon of the gastrocnemius, or the anterior or posterior tibial muscles. The anterior tibial tendon, which, from its length and superficial position, afforded a fine opportunity for examination, presented an uninterruptedly smooth glistening appearance, without the slightest indication of its having ever been divided; so much so, indeed, that a doubt passed over my mind, for the moment, whether it had actually been severed. The posterior tibial tendon and the tendo Achillis were then carefully examined in the situation of the puncture in the skin, and both were as perfect as that of the anterior tibial. No trace of the division of either could be discovered upon this examination. I brought the tendons away with me, and macerated them, when a linear cicatrix was visible in the anterior and posterior tibial, but not in the tendo Achillis.

Taking the last of these two cases then (an illustration of many), and bearing in mind that this child had exercised its foot in the natural position, unassisted,—if structural shortening of the muscle existed, to what are we to attribute the increased length which must have been given to the tendon by the operation? We do not find the tendons yield, even with the steady and continued application of considerable force; the lengthening must, therefore, have been at the cost of the muscular fibre. Now muscular fibre, during life, possesses more power than its passive agent, the tendon, as is frequently seen in the rupture of the most powerful tendon in the body—the tendo Achillis—in a sudden and violent muscular effort. It is difficult, therefore, to be reconciled to the possibility of the muscle itself yielding, by a separation of its fibres,—the only way in which increased length could be obtained, if structural shortening existed.

The only conclusion at which I can arrive is, that the muscle is contracted upon itself, and thus is a cause of the deformity, and that the lengthening, by which the cure is effected, is produced by the drawing out, if I may so express myself, of the contracted muscle. This, however, does not take place immediately upon the operation, but is occasioned by the contraction of the cicatrix while it is resolving itself into its permanent condition.

Then comes the question—What is the cause of the contraction of these muscles? Is it owing, as some imagine, to any spasmodic action during uterine existence? There is no evidence of such a cause, for if spasmodic action produced it, that must involve some organic or functional derangement or disease of the nerves supplying those muscles, and what evidence have we of this? No case of irregular muscular action has presented itself in all the congenital cases that have passed under my observation, from the infant of a week old to the adult of fifty-three years. If, therefore, a disease, or cerebral or spinal irritation exists *in utero*, it also ceases to exist *in utero*, and this is not easily reconcilable with our every day experience, for diseases which originate *in utero*, present themselves and become more developed after birth. Congenital hydrocephalic conditions, syphilitic, etc., present themselves at, and exist after birth. In fact, if the muscular contraction arose from this cause, it would be contrary to every rule, and at variance with all experience; and I cannot adopt such a conclusion.

There is another very important fact in connection with these cases; namely, that at whatever age you examine the foot and leg of patients afflicted with congenital deformity, the muscles are found to be perfectly under the control of the will. Although the severe malposition may, during a life-time, have prevented the exercise of those muscles, except to the most limited extent, yet both the adductors, which are contracted, and the abductors, which have been kept at nearly if not quite their full amount of extension, retain their functions, and suffer only from diminished development.

You can, at your leisure, examine patients now in the wards, some of them very severe cases; and you will find that, upon requesting them to try to turn the foot in either direction, inwards or outwards, although they cannot in these endeavours alter the position of the foot, yet both the adductors which are contracted, and the abductors which are extended, instantly contract by the effort of the will.

The only cause to which I can attribute this deformity is position *in utero*, whereby the feet are kept inverted during the growth of the child, if not constantly to their full extent, yet nearly so, and always during the passive state of the fœtus, and thus admit of contraction of the muscles taking place, as is witnessed in some of the non-congenital deformities.

The mothers of these children will generally assign as a cause some fright or sudden mental impression, occurring during pregnancy. One case upon which I operated, the child of a very talented woman, was attributed by the mother to a fright which she received while travelling by railway. The train got off the line, and the step of the carriage in which this lady was seated was observed by her to be twisted, and to that she attributed the deformity. I can understand a *malformation* being produced by a fright received *previously* to the complete formation of the child—that is, during the first few weeks of its embryotic existence—but not after the form is perfected; and malformations with talipes varus congenitus, as shewn in the statistics I have quoted, are so rare as to be quite exceptional.

These cases present, as a rule, no trace of malformation. Mothers are so accustomed to anticipate evil when in the "interesting condition", their minds, as well as their bodies, are occasionally so prolific, that they not only create distorted feet,

but almost every form that is to be found in the animal and vegetable world. A preference is, however, generally evinced for such objects as are more particularly gratifying to the senses of sight and taste. There is no dependence to be placed upon such testimony. In the larger proportion of the cases included in the statistical table, no cause whatever could be assigned by the parents.

Persons who are afflicted with this deformity possess no available motion in the ankle-joint, which, so far as the exercise of it is concerned, is perfectly useless, the limb in walking being kept stiff from the knee downwards, the anterior superior surface or dorsum of the foot looking directly forwards, the sole backwards, and the inner edge presented upwards, the outer and upper edge being the part trodden upon (Figs. 8, 9). When both feet are affected, the anterior portion of the one foot overlaps that of the other on each step taken, the deformity being more striking in appearance in these cases than in any that we are called upon to treat, as there is no possibility of disguising it. This was the deformity with which Lord Byron was afflicted, and it was, as is well known, a perpetual source of severe irritation to him. Some go so far as to attribute to this cause the blots which marred the character of that gifted man. It is certain that the poorest suffer mentally from the presence of deformity, and will make any sacrifice to obtain relief.

Upon the dorsum of the foot, the part subjected to pressure, a cushion is formed of condensed cellular tissue, which protects the bones from injury, and enables the patient to get about with tolerable comfort. In some cases, however, great pain and irritation are occasioned in walking, which compel many of these patients to follow sedentary occupations, such as those of a tailor, shoemaker, etc. Occasionally, this cushion ulcerates out completely, from inflammation set up by the irritation caused in walking, after which all exercise is attended with severe suffering, from the absence of all protection to the bones. A medical gentleman, aged 32, afflicted with this deformity in its most severe form, was prevented from following his duties by this accident, which induced him to submit to the operation.

As a rule, this deformity is unattended with malformation. I have, however, seen some cases in which there was no muscle in the front part of the leg below the knee, a condition which is generally accompanied by contraction and malformation of the knee-joints. This state is indicated by a total absence of any definite outline, the toes falling in a somewhat contracted position, the foot and toes, in front, presenting a perfectly smooth appearance. So marked is this appearance, that it is immediately recognised after having been once observed.

In some instances of congenital varus, the ligaments of the knee-joint are found to admit of a slight rotatory motion of the tibia upon the femur, so that after the foot is cured, rotation inwards takes place, and unless attention is called to this circumstance, the cure will be questioned; for although the foot may be perfectly flat upon the ground, and allow of flexion to the full extent, yet upon walking the toes will be directed inwards. In delicate children, the deformity, if confined to one leg or foot, occasions an irregularity in walking, which at times gives rise to lateral curvature of the spine, from the undue motion which is kept up in the spinal column, through the lameness of one extremity. This does not apply to cases in which both feet are affected, as in those instances there is no motion which is not common to both sets of muscles. This deformity is met with in every amount of severity, in the infant as well as in the youth and adult. In the infant, the greater severity is owing to slight displacement of the bones, occasionally met with, which gives the foot almost an appearance of compression. In the older patient, there is always contraction of the ligaments, and not unfrequently of the plantar fascia, as I have mentioned. This state, however, differs materially, even in adult cases. For instance, some feet, upon examination, will appear as immoveable as a mass of bone, whilst others, in patients of the same age, and with the same amount of deformity, possess a considerable amount of motion. Occasionally, in infants, you will find that with but little force, the foot can be brought into its proper relative position, and even in severe infantile cases a great improvement in appearance can at all times be produced by the hand alone. The foot, however, when released, returns with an elastic impulse to the malposition. This is not the result of spasm, but a return of the muscle to the contracted state after having been forcibly drawn out. It differs from spasmodic action in this, that the foot always returns immediately to the malposition, whereas in the spasmodic action, as we see in non-congenital cases, the foot will be retained for some short time in the position into which it has been forced. There is also this important difference, that after the removal of the deformity, in congenital varus, the patient possesses perfect voluntary control over the muscles, whilst in the spasmodic cases, the same irregular muscular action continues, and is not to be controled by the efforts of the will.

[*To be continued.*]

A Course of Lectures

ON

URINE, URINARY DEPOSITS, AND CALCULI.

DELIVERED AT THE PATHOLOGICAL LABORATORY, DURING THE SESSION 1857-58.

BY

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LECTURE VI.

THE ANATOMY OF THE KIDNEY. ITS ACTION IN HEALTH AND DISEASE. *Cortical and Medullary Portions of the Kidney. Pelvis. Mammillæ. Infundibula and Calyces. Artery. Vein. Nerves. Lymphatics. Secreting Apparatus. The Uriniferous Tube. Of the Circulation in the Kidney. Epithelium. Of the Basement Membrane of the Tubes and of the so-called Matrix. On some Points connected with the Physiology of the Kidney.* ON THE FORMATION OF CASTS OF THE URINIFEROUS TUBES. *Of the Cast. Circumstances under which the Renal Secretion may be altered in Quantity or Quality. On the Absorption of Substances from the Stomach, and their Excretion in the Urine.* MORBID CHANGES AFFECTING THE STRUCTURE OF THE KIDNEY. *Of Bright's Disease. Dr. Johnson's Investigations.*

[*Concluded from page 557.*]

Circumstances under which the Urine may be altered in Quantity or Quality. In the remarks I am about to make, I shall consider it as proved that the solid constituents of the urine are separated by the cells lining the uriniferous tubes, while the water filters through the walls of the capillaries of the Malpighian body. Albumen and extractives may escape from the latter capillaries, and also from those surrounding the tubes. The material of which casts are formed probably enters through the walls of the tube, but it may also pass into the tube from the Malpighian body. Diuretics may act in two ways—1. By causing increased transudation of fluid from the Malpighian tuft, in which case pale urine, containing very little solid matter, will escape in considerable quantity; 2. By stimulating the cells to separate from the blood a larger amount of solid material, in which case a highly concentrated urine, rich in solid matter, will be secreted in greater proportion than in health. If the action of the cells be interfered with in any way, congestion of the capillaries around the tubes will occur; hence those of the Malpighian body will be distended, and albumen will probably pass into the tubes. In certain diseases, there seems to be a tendency on the part of the kidneys to throw off morbid material which exists in the blood. If, under these circumstances, the flow of blood to the kidneys is not compensated for by rapid removal of these matters, congestion, perhaps running on to inflammation, occurs, and there is danger of serious damage to the organ.

It is in this manner that the albuminuria following scarlatina, and that coming on from exposure to cold, are to be explained. This subject has received full consideration from Dr. Johnson, in his work *On Diseases of the Kidney*, and also in that *On Cholera*. The action of many irritating diuretics is to be explained in a similar manner. A quantity of cantharides, which would do no harm to a strong healthy man with sound kidneys, would produce dangerous congestion and inflammation, with rupture of the capillaries of the Malpighian body, in a person who was recovering from an illness, or in one whose kidneys were affected by disease. In the one case, the secreting power of the cells appears increased by the action of the drug; while in the other they are incapable of effecting

the increased amount of work suddenly thrown upon them, and the results above described must occur. Kramer and Golding Bird state that squill, copaiba, broom, juniper, and guiacum, cause the removal of an increased proportion of water from the blood, but do not influence the quantity of solid matter removed from the body in twenty-four hours. It seems probable that these remedies affect the capillaries of the Malpighian tuft, either directly, or through their action upon the nerves distributed to the renal vessels.

In cases where the blood is very watery, the excess of fluid is carried off by the kidneys; but, at the same time, a greater amount of solid matter is removed in a given time, partly arising from the tissues being washed out by the large quantity of fluid, and partly because the formation of urea, etc., is favoured by a dilute state of the fluids.

Many neutral salts (nitrates, sulphates, etc.) seem to increase the secretion of urine by being attracted from the blood in a state of solution, in all probability by the renal epithelium, the kidney being the channel by which they naturally leave the system. Urea has a similar diuretic action. Within certain limits, the greater the quantity of these substances in the blood, the more will be removed by the renal epithelium, supposing this to be healthy. The more strongly the epithelial cells be charged with urinary constituents, the greater the quantity of water required to dissolve them out. This seems to be effected as follows:—When the urinary constituents are not removed from the cells by the water coming down from the tuft as fast as they are separated from the blood, they must accumulate until the surcharged cell ceases to exert that attractive force upon the blood in the capillaries around the tube which it does ordinarily. The tendency to stasis in the circulation thus caused necessarily interferes with the free passage of the blood through the Malpighian capillaries, and the increased pressure which results causes the escape of fluid into the tube, which washes out the solid matter accumulated in the cells. The latter resume their action, the circulation becomes free again, and the normal relation between the action of the cells of the tube and the Malpighian body is reestablished.

Now alkalies, and especially the citrates, tartrates, and acetates, which become converted into carbonates in the system, increase not only the quantity of water removed from the system, but also materially augment the proportion of solid matter. These salts increase the quantity of urea and other matters formed. They seem to favour the conversion of the products resulting from the disintegration of tissue into these constituents. The action of such remedies is very desirable in a vast number of cases; and where the kidneys are healthy, they invariably act favourably. The renal epithelium is intimately concerned in the separation of the carbonates formed from these salts in the system, and the urinary constituents whose formation has been promoted by their presence.

A certain degree of dilution is necessary to ensure the diuretic action of many neutral salts. If the density of the solution be very great, exosmose of fluid from the blood will take place; and certain salts may be made to act as purgatives or diuretics, according as they are diluted with a small or with a large quantity of water. The observations of Dr. Headland, however, show that this physical explanation cannot be applied in all cases. That sulphate of magnesia is absorbed, at least in the majority of instances, there can be no doubt. It is often excreted in large quantity in the urine: and it is probable, as Dr. Headland suggests, that its purgative action is due to its removal, in the form of a weak solution, from the blood by the action of the intestinal mucous membrane.

The excretion of urine will also be materially affected by all those circumstances which influence the circulation in the kidney. The compensating action existing between the cutaneous secretory surface and the kidneys has been already alluded to. Pressure on the renal arteries, or on the aorta above their origin, will diminish the secretion of urine. Pressure on the veins, on the other hand, will first of all cause an increased flow of urine, and afterwards albumen will escape. In congestion of the liver and portal system, the amount of solids is greatly increased. It would appear that in many cases, where the action of the liver is imperfect, and especially in some forms of organic disease, the kidneys to some extent perform the functions of the liver. In jaundice, both colouring matter and biliary acids are carried off in the urine. In this case, however, it must be borne in mind that these biliary constituents are formed by the liver reabsorbed into the blood, and separated from it, as are many other substances abnormally present by the kidney. In many affections of the liver, the urine-pigment is much increased; and it is probable that a certain proportion of material which, in a state of health, would have been converted into bile, is transformed into certain extractive matter and other substances, and eliminated in the urine. The crisis of many acute diseases is characterised by the presence of a large quantity of solid matter in the urine, and increased action of the kidney. Free sweating, and the secretion of a urine containing a large amount of urea and urates, in the course of many diseases, are often the earliest and most important indications of approaching convalescence. Dr. Golding Bird showed that abatement in the severity of the symptoms of ague was always associated with an increase in the amount of solid matter in the urine. Now, in all these cases, it is obvious that the activity of the secerning power of the renal epithelium is increased, and that the separation of urinary constituents from the blood cannot be regarded as a mere percolation, but dependent upon a vital property of the cells; while an alteration in the proportion of the water is rather to be attributed to altered states of the calibre of the arteries which supply the Malpighian bodies, and to the variable pressure exerted by the blood as it traverses the Malpighian capillaries, depending to some extent upon the freedom with which it passes onwards into the capillary system, among the meshes of which the tubes lie.

On the Absorption of Substances at the Stomach, and their Excretion in the Urine. The rapidity with which weak solutions are absorbed from the digestive organs, and secreted by the kidney, is marvellous. In Mr. Erichsen's well known experiments, it was shown that ferrocyanide of potassium could be detected in the urine within a minute after it had entered the empty stomach. These interesting conclusions were derived from experiments made on a case in which, from the deficiency of the anterior wall of the bladder and abdomen, the orifice of the ureters could be seen, and the urine collected as it trickled from them. A German suffering from this terrible malformation was in London two years ago, and I think many of you had an opportunity of seeing him, and observing how very soon after a large quantity of water had been swallowed, the rate of the flow of urine from the ureters increased.

Anything interfering with the absorption of fluid from the stomach or intestinal canal will necessarily affect the secretion of urine. In various cases where the contents of the alimentary canal are in a condition unfavourable for absorption, but a very small quantity of urine is formed. Dr. Barlow has gone so far as to say that the seat of an obstruction in the intestine can be ascertained by noticing the quantity of water excreted in the form of urine. When close to the pylorus, it is stated that scarcely any urine is separated. In ordinary cases of what is known as sick headache, where, from temporary stomach derangement, little absorption occurs for some hours, no urine is secreted perhaps for twelve hours or longer. The termination of the attack is marked by the very free and rapid action of the kidneys.

Morbid Changes affecting the Structure of the Kidney. In cases where the blood which passes through the kidney is unhealthy, and especially when it is loaded with noxious matter, as takes place in the majority of cases of long continued beer or spirit drinking, the secreting power of the renal cells is gradually impaired. They lose their healthy appearance, and become much shrivelled, and at last suffer disintegration; while, in consequence of the germs having been destroyed at an early period of growth, their place is not occupied by a new generation. A complicated series of morbid changes in other structures of the kidney gradually ensues; and, in consequence of the blood being rendered still more depraved by the accumulation in it of matters which ought to be removed by the kidney, other organs are gradually involved.

In the kidney, it will be observed that the coats of the smaller arteries become much thickened, the capillaries shrink, while their walls become thicker and often granular. The quantity of blood distributed to the organ diminishes; and many of the capillaries, being no longer required, shrink and cease to transmit blood. The diameter of the secreting tubes decreases, while the basement membrane is thickened and more impervious. The whole organ becomes hard, and at the same time small and shrunken. This decrease in size takes place principally at the expense of the cortical or secreting portion of the kidney, as would be supposed. Such serious changes in the structure of an organ so important as the kidney necessarily affect the system generally, but these we must not now stop to consider. The Malpighian bodies also waste. The remains of many may be seen without a capillary in them being pervious; and not a few of those which still exist are found to be so

altered that they can hardly be recognised as Malpighian bodies at all. The greater part of the blood sent to the kidney passes into the pyramids by the *vasa recta*, and soon reenters the veins, a small quantity being distributed to those tubes and Malpighian bodies nearest the pyramids. The diminished amount of urea, etc., present in the urine, is probably separated in this latter situation; while a certain quantity of water, with a little albumen and the material of which the casts are formed, also escape in this situation, as well as from the straight part of the tubes.

Long before the disease has arrived at this stage, the urine will be found to contain a very small amount of solid matter, which consists principally of salts and extractives, with a very little urea.

By many pathologists these changes are explained by the effusion of inflammatory lymph, and subsequent thickening, condensation, and contraction of the so-called *matrix;* but it seems to me that all the appearances observed may be much more simply accounted for on the view that they depend upon depraved nutrition and wasting, than by resorting to the hypothesis of the inflammation of a structure whose existence has not been satisfactorily demonstrated, and which, if it does exist, according to its warmest advocates, only serves as a supporting tissue to the more essential elements of the gland-structure. It is very hard to see why such a tissue, which takes no active part in the changes going on in the gland, should be the starting-point of all the serious morbid alterations which occur. The idea, I believe, has arisen from a supposed analogy between cirrhosis of the liver and the so-called chronic inflammatory disease of the kidney. Cirrhosis was considered to depend upon inflammation, thickening, and subsequent contraction of another supporting fibrous tissue (Glisson's capsule), which was supposed to surround the lobules of the liver, and by its contraction to press upon the vessels ("On Cirrhosis of the Liver," *Archives of Medicine*, vol. i, p. 118). For the origin of these morbid changes, we must look to the altered actions going on in the secreting structure, and not to inflammations of tissues of doubtful existence, which take no part in the nutritive operations or gland-functions. The conclusions to which I have arrived from my own observations, with reference to the nature of the so-called matrix in the healthy kidney, and the changes taking place in disease, are at variance with those usually entertained both in this country and on the continent. The discussion of this question involves the whole subject of areolar tissue and its corpuscles, and I therefore propose to defer it until this has been fully entered into in another place. For an admirable statement of the opinions generally held, with many original observations, I must refer you to a work by Arnold Beer, just published in Berlin (*Die Binde-Substanz der Menschlichen Niere*). The drawings accompanying this work appear to me rather rough. The engraver perhaps has misinterpreted some of the author's representations.

In other cases, the epithelium undergoes a very peculiar change, to which much attention has been given of late years. Fatty matter accumulates in the cells of the uriniferous tubes. The intertubular capillaries and those of the Malpighian bodies are also affected in a similar manner, and little collections of minute oil-globules may often be seen at intervals in their walls. This change often commences in a few of the tubes, and gradually extends until the whole organ is affected. The kidney is in many instances much enlarged, while its colour has become very pale. Fatty degeneration, in many instances, is not confined to a single tissue or organ, but almost every part of the body is more or less involved.

Bright's Disease. This term has been applied to all *morbid conditions of the kidney associated with albuminous urine.* Of late years many important characters have been made out, by which we are enabled to distinguish several diseases of the kidney essentially different from each other—different in their origin, in their progress, and often in the results to which they lead. Dr. Johnson has accurately described several of these morbid changes, and his researches have been confirmed by other pathologists. However, some physicians still insist that the different conditions above alluded to are merely different stages of one and the same morbid process. Let me ask you to examine carefully the small contracted kidney so commonly found in the bodies of old drunkards, with its rough puckered surface and diminished cortical portion, and contrast it with the large, smooth, and pale kidney, in a state of fatty degeneration, which is not unfrequently met with in young people not more than twenty years of age. The causes of these diseases are different; the conditions under which they occur are different; and, although the result is fatal in both, death occurs in a very different way. Their chemical characters are different; their microscopical characters indicate the occurrence of changes which are totally distinct. Again, the treatment required in the early stages of these diseases, when alone any benefit is likely to be derived from treatment, is different.

The divisions and nomenclature adopted by Dr. Johnson are the following: *Acute desquamative nephritis; Chronic desquamative nephritis; Waxy degeneration of the kidney; Non-desquamative disease of the kidney; Fatty degeneration of the kidney; Suppurative nephritis.* Dr. Johnson still supports the same classification, and opposes the theory held by some pathologists with reference to the *oneness* of Bright's disease. He has recently written a paper on this subject, which will be found in vol. xlii of the *Medico-Chirurgical Transactions.* Dr. Johnson says, with regard to the oft debated question if large kidneys, at a subsequent stage of the morbid changes, contract, "The *rule* is, that a large Bright's kidney remains large to the end, and does not become a small one; and, on the other hand, a contracted Bright's kidney does not pass through a previous stage of enlargement."

We come now to the consideration of the nature of the various substances found in an insoluble condition in various morbid specimens of urine. Under this head I shall include insoluble substances floating upon the surface or suspended through the fluid, and those which, from their tendency to subside after the urine has been allowed to stand for some time, are properly termed *urinary deposits.* In the next lecture, I shall describe the methods of collecting and preserving urinary deposits, and draw your attention to the nature of various substances of extraneous origin which are often accidentally present in urine, and are not always easily recognised, leading thereby to great confusion; and in some instances, the observer, ignorant of their characters, has fallen into the most ridiculous mistakes.

Original Communications.

SCROFULOUS DISEASES OF THE EXTERNAL LYMPHATIC GLANDS:

THEIR NATURE, VARIETY, AND TREATMENT.

By P. C. PRICE, Esq., Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children at Margate; etc.

I.—INFLAMMATORY CONDITIONS OF THE EXTERNAL LYMPHATIC GLANDS IN SCROFULOUS SUBJECTS.

[*Continued from page 500.*]

General Treatment of Acute Inflammation. Active inflammatory lesions of the absorbent system in scrofulous subjects are, as a rule, attended with more or less general constitutional disturbance, whether occurring in infants, in young children, or in adults.

As already stated, the tongue becomes furred, the pulse quick, the bowels costive, the urine scanty and high coloured; to which are added restlessness, loss of appetite, irritation, and pain. It may be that, a few days before the actual detection of any derangement of the absorbent glands, the patient becomes restless, and refuses food; but it is not till the appearance of any marked cause of irritation that the general symptoms create much attention. The derangements, which now become more or less prominent signs of local mischief, are to be encountered in such a way that, while the pressing symptoms are combatted, the constitutional powers, which in scrofulous individuals susceptible to attacks of adenitis are often feeble, are not materially lowered. When the patient is of tender years, and it is suspected that the inflammatory lesion arises from a direct cause, and the irritative fever is strongly marked, the following treatment is the one I usually adopt in hospital as well as in private practice. The bowels should be first acted on by means of small doses of hydrargyrum cum cretâ, combined with a few grains of compound rhubarb powder, administered every or every other night, at bedtime; while small and frequent doses of liquor ammoniæ acetatis and spiritus ætheris nitrici, combined with some bitter infusion, will tend to procure moisture of the skin, and allay the increased heat of the body. Should the pain and distress be severe, and lead to restlessness

and want of sleep, small doses of a narcotic may be advantageously administered. If the patient be an infant or young child, a few drops of syrup of red poppies will generally prove sufficient; but, if not, small doses of opium or chlorodyne may be substituted. As the local mischief advances, the system still further sympathises; and, if the powers of the patient be much lowered, a suppurating and tonic plan of treatment will be advisable. Quinine with the mineral acids and chlorate of potash will be found of value, especially when combined with the last mentioned drug. In addition, stimulus, if needful, in the shape of chloric ether or alcohol, must not be forgotten; while the introduction into the system of nutriment is important, to enable the patient to stand the shock that often accompanies the formation of pus and its imperative removal. Should the inflammatory process stop short of suppuration, the affected gland or glands will remain for a time more or less swollen and indurated, and it will then become important to assist the debilitated powers to procure removal by absorption of the probably effused plastic material to which the enlargement is due. Iodine, without doubt, is the most valuable adjunct that we possess; and, should the system be in a condition to allow its administration, small and repeated doses, in combination with cod-liver oil, may prove of advantage, especially if a marked tendency exists to scrofulous outbreaks.

The most useful forms in which to prescribe iodine will be hereafter described. Besides iodine, mercury is often recommended as an assistant, to obtain resolutions; but it is seldom that the practitioner is called upon to use a drug which, under certain circumstances, is capable of producing more harm than good.

Local Treatment. Much may be done to alleviate pain, retard the progress of the inflammatory mischief, and avert destruction of neighbouring tissues, by attention to local treatment.

In the earlier stages of inflammatory *engorgement*, accompanied by pain, tension, swelling, and redness of the skin, it may be needful to reduce the vascular excitement by local depletion. The application of one or more leeches is, therefore, sometimes advisable; and the abstraction of a limited amount of blood attended with benefit. As a rule, however, I cannot advise local bleeding; for I have seldom found it expedient, especially in instances in which the scrofulous tendency has been prominently portrayed. Bleeding in scrofulous disease is in general to be deprecated; for the blood is usually watery, devoid of a due amount of fibrine and red globules, and consequently can ill afford diminution, as has been well shown by MM. Guersant, Andral, Nicholson, etc.

Emollient applications will generally be found more grateful than cold evaporating lotions, especially when the inflammatory mischief runs high. They may consist of warm decoctions of poppy heads, linseed or bread poultices, or simply of fomentations of hot water. When, however, there appears doubt as to the suppurative termination of an inflamed gland, it is not always prudent to apply either fomentations or poultices. An undue persistence in such means is not unfrequently attended with results which it is advisable to avoid.

Should *suppuration* unfortunately be established either in the gland or cellular tissue, or in both (in such cases, the inflamed gland will probably, at an early period, have become adherent to the cellular membrane and the covering integument), it is of importance to bring it to a satisfactory termination. When the secretion is limited to the gland, there will in general be but little chance of the fluid being absorbed; but when implicating the cellular membrane, its absorption is not so improbable, for it must be remembered that the sac of an abscess is both secretive and absorptive. When purulent fluid has formed, and its increase is perceptible, whether confined to the gland or including the cellular structure, and it exhibits a tendency to reach the surface by gradual thinning of the integument, then those means must be followed which will afford assistance to nature in accomplishing such an object. Emollient fomentations and poultices now become useful adjuncts, and may be stedfastly employed till the matter has reached almost to the surface, when more definite surgical means are generally needed to give relief from pain, prevent the further destruction of adjacent parts, and bring the mischief to the most satisfactory termination. Various opinions exist as to the propriety of allowing a natural or artificial exit for the pent-up matter. The generality of surgeons, however, believe that timely assistance given by the lancet or caustic is better practice than permitting ulceration or bursting of the thinned covering integument; but, although the majority of authorities coincide on this point, still there is a strong minority who insist on the general advisability of not interrupting Nature in her own course. As might be supposed, there are numerous occasions when the latter practice is the better of the two; but I think, as a rule, there can be no doubt that a judicious employment of surgical means is accompanied with many advantages.

At one time, caustic substances, as the caustic potash, nitrate of silver, etc., which corrode the integument at the place of application, were much used by surgeons to form an eschar, so that the purulent matter might find an easy and ready exit at a point which had thus been artificially undermined. In abscesses of an acute nature, such a plan is fraught with disadvantages, and is seldom employed, except in instances in which the knife cannot be resorted to, but where it is needful to give artificial assistance.

In the employment of the knife and lancet, there is one great question always to be entertained in every individual case—At what time, or in what condition of the parts, should the knife be used? Now, while general principles on this point have been inculcated by the most experienced authorities, still no very definite rule can be laid down as applicable on all occasions. It must, however, be acknowledged that a resort should not be had to the lancet, as a rule, before the covering tissue has become thinned, and there is distinctive evidence of purulent fluid. To cut into an abscess, especially one in which one or more absorbent glands are concerned, ere the contained matter has reached nearly to the surface, is unquestionably bad practice; for very considerable pain is thereby given, and inadequate assistance afforded.

But individual cases will call for modifications of practice, although the wiser plan, in the majority of instances, is to wait till decided fluctuation is established, and the covering tissues appear in a condition fit to be cut. A limited incision with a sharp knife or lancet is all that is generally required; for it must be admitted that extended openings are seldom accompanied with much advantage, while future inconvenience, as the ever-telling unsightliness of a scar larger than occasion required, points to the too heroic and unnecessary interference of the surgeon.

Although the pent-up fluid has been evacuated, still it does not follow that suppuration will necessarily cease. It has been asserted that, in scrofulous depositions, a marked tendency generally exists to admit the formation of suppurative processes; and hence it is that considerable difficulty is often experienced in healing even an acute abscess occurring in connexion with a strumous habit of body. The means, however, for attaining such an end, in rebellious cases, will be further considered when speaking of the more precise forms of scrofulous abscesses in connexion with glands. Suffice it to remark, that the sooner the closing of the purulent cavity is effected, the better; for continuous secretion is often accompanied with an amount of distress to the system which in after years may be proved to have acted unfavourably, in having laid the foundation of more permanent and serious mischief.

Should the inflammatory mischief not have passed on to suppuration, but merely to an effusion of plastic and coagulable material sufficient to cause more or less permanent swelling of the affected gland, an indurated condition obtains, which it is the province of the surgeon to attempt to reduce. As the morbid action decreases, gradual subsidence of the swelling probably follows; but if not, it becomes advisable to use certain artificial means to assist the debilitated absorptive processes in their function. For this reason, it is usual to have recourse to the topical application of iodine, mercury, blisters, frictions, and other aids, both therapeutical and mechanical, to promote the removal of the swelling. In what way these means are best put in practice, will be more conveniently considered in treating of the reduction of various forms of chronic indurated glands.

[*To be continued.*]

KENT BENEVOLENT MEDICAL SOCIETY. The seventy-third anniversary of the Kent Benevolent Medical Society was held at Maidstone, on Wednesday, the 18th instant, under the presidency of Robert Starling, Esq., of Tunbridge Wells. The members present had the gratification of granting allowances to all the applicants, and of increasing the annuities of the widows whose ages exceed 70 years from £10 to £50. One of them has been supported by the society for thirty-eight years.

OBSERVATIONS ON THE TREATMENT OF ASTHMA.

By T. L. PRIDHAM, Esq., Surgeon, Bideford, North Devon.

[*Continued from p.* 435.]

IN the paper published in the JOURNAL on June 9th, I stated that I considered *dyspeptic* asthma to be, for the most part, under the control of medical treatment, and, according to my experience, by far the most frequent form of the disease. There are some further peculiarities which I have noticed in asthmatic persons, and which I would here name. First, the proportion of cases in men to women, according to my notes, is about eighty per cent. of the former. Secondly, women who are liable to asthma have gout prevailing in their families in a larger proportion than men; whilst in both sexes a number have both these hereditary diseases. Then, again, I have remarked that asthmatic people are, for the most part, gifted with great energy and talents far beyond ordinary people; and in one instance, in a lady, of whom I will hereafter speak, the greatest courage and resolution were evidenced; whilst those afflicted in humble life have been remarkable for intellectual attainments far beyond their station. It has not been unfrequently the case that I have seen persons, as soon as an attack of asthma is over, turn at once to abstruse subjects, to which the peculiar bent of their minds has been directed: and they generally excel in whatever subject of study they are disposed to follow.

I now proceed to the further evidence of cases which have been treated by me under the sedative and strict dietary system; and in doing so, I think I cannot give stronger proof of its efficacy than by quoting communications from patients themselves, as evidence of the relief they have obtained, and the life of comparative ease and comfort to them after adopting the system. But, before I go further, I would remark on the absolute necessity of procuring the best prepared extracts, which form of medicine I have invariably used for the purpose required. I have more than once been disappointed in my treatment, when my prescriptions have been sent to ordinary druggists, with whom sufficient care has not been taken in this matter; therefore I strongly advise medical men to procure their extracts from, or send their prescriptions to, some known first-rate practical chemist, whose reputation greatly depends on the purity of his chemical preparations. Genuine extracts retain for a long time their distinctive odour, remain moist, and do not mildew. The sedative extracts which I have generally used are those of henbane, conium, belladonna, and stramonium, gradually increasing their doses, and frequently substituting one extract for another, as symptoms appeared to demand.

It is not my intention to enter into the more scientific department as to the supposed causes and effects of this mysterious and capricious disease, so ably treated of in the pages of this JOURNAL by Dr. Hyde Salter, whose remarks I have read with much interest; my object is simply to record my remarks on the history of cases as reported by my patients, together with observations made by myself during my professional attendance, which may, I trust, lead to the mitigation of sufferings. My own opinion is, that it is impossible, from the present knowledge we possess, to come to the *real causes* of the disease in asthma; but still I trust practical observations may be valuable, inasmuch as they may lead to scientific researches, not only as regards the state of the blood in asthmatic patients, but also as regards the peculiar expectoration which is thrown off, through the medium of the lungs, in the different forms of the disease, which appears to me to be Nature's effort for relief; for it is my strong impression, as I have before stated, that it is in the blood that the secret lies, as, the more healthy is the state of the powers of digestion, so in proportion is the freedom of the patient from disease in dyspeptic asthma. Then, again, as regards persons being affected in certain localities whilst perfectly free in others, may not the peculiar state of the atmosphere add impurities to the blood in some districts, whilst in others a more congenial atmosphere will lessen, and in some instances entirely remove, the impurity which exists in the circulating fluid in those who are predisposed to the disease by hereditary causes? I have, apparently, seen several instances of this kind, which I will hereafter name.

I will now proceed to record the history of cases of dyspeptic asthma.

CASE II. In the year 1855, I was requested to visit a clergyman, upwards of seventy years of age, from the north of England, who had been residing in this town for some weeks, for the benefit of his health. I had frequently remarked him in the streets; and not knowing the exact history of his case, I considered he was in the last stage of consumption, so emaciated, so feeble and distressed, did he appear. I think I never saw any one walking at large so emaciated. I learned from him, that he had been afflicted with asthma for ten years, that during that time his clerical duties had been suspended, and that, in fact, he was quite a martyr. In this time of his affliction, he had sought every possible advice, both in London and in the country, but without any material benefit or relief; the general opinion given him was, that he would never recover, and that he must bear his affliction as best he could. He was not able to lie down in bed; and, for years, every night he had anticipated death before the morning came, when, however, a copious heavy expectoration would with difficulty be thrown off from the lungs, and as the day advanced he became somewhat relieved, was then dressed, and passed the remainder of the day in great discomfort. Having inquired into his mode of living, I was told pretty nearly as follows:—At six in the morning, he had a cup of strong coffee; at nine, he had tea or coffee, toast, eggs, or a chop; he lunched at one, generally on bread, cheese, and porter; he had a substantial dinner, with porter and wine, and a fair quantity of port-wine after dinner; he had tea or coffee in the evening, as well as supper afterwards. My remark was, "And for all this amount of nourishment, you are as thin as any human being can well be." He replied, "I have been invariably told that, without such support, I cannot live a month; and I take it to make up for the large amount I expectorate in the morning." I examined his chest, and found neither tubercular deposit nor any lesion of the lungs; but evidently, from the very clear sound emitted on percussion, the lungs were emphysematous, particularly under the right clavicle, whilst lower down a dull sound was emitted. In the morning, the pulse was seventy in a minute, but as night came on it rose to ninety or a hundred. His tongue had a very morbid coat—large, with fissures in it; his stomach was generally distended, and, though he ate so much, he had never any great desire for food; his bowels were irregular; the secretions dark; the urine was loaded with a pink deposit. At the conclusion of my first visit, I surprised him by saying, "You will considerably improve in health under the treatment which I intend to adopt, and, although your age is such, I should not be surprised at your one day being in harness again." His reply was, "That is utterly impossible; my disease has taken such hold on me for so many years." He further said, "he looked forward to nothing but death, and he often prayed to be released from his sufferings." I went on to remark that, if my treatment was to benefit him, seeing it was an extreme case of dyspeptic asthma, he must make up his mind to one thing, and unless it was fully carried out, he must not expect to derive any good result; that was, he must eat just one-fourth of what he was daily in the habit of taking, and, in addition, his food must be weighed, and taken as regularly as the clock struck. His reply was, "If that be your plan, you will soon shorten my days." I begged him to try it for one week, which he at length acceded to. I commenced my treatment on the 23rd of April, by giving an alterative dose of blue-pill, and a saline aperient. I then ordered three grains of the extract of henbane four times a day, and the same system of dietary as prescribed in my first case, allowing him, in the form of animal food, only two ounces of it twice a day. The result was, that at the end of a week he was able to lie down in bed and sleep several hours; his morning expectoration had lessened considerably; his appetite improved; his tongue cleaned; the distension at his stomach lessened; the urine was clear; his spirits lightened; and he could exert himself with much more ease. He was now fully satisfied that the plan had so far succeeded; but his great fear was that he should be starved, by reason of so small a quantity of food being allowed him. At the end of ten days, I substituted the extract of conium for that of henbane, ordering him four grains four times a day. From this time, he improved rapidly until he left the town to return home, on the 14th May. On the 19th June, he wrote me from London, where he was staying with some friends: "I cannot be sufficiently thankful for the comparative ease and comfort which, through God's blessing and your skilful management, I have now enjoyed for the last six weeks. The weather has been most unpropitious, notwithstanding which, I have not entirely avoided the cold; my nose is rather 'stuffy' from its effects, but no symptoms of asthma have yet appeared, and I trust, by my strictly adhering to your regimen, I may be spared any return." On the 30th June, he wrote, from his home in the north of England—"I find the air here much keener than in Bideford or in London, and it has come chiefly from the east. I cough a little in the morning, on

first waking; but I have felt nothing like asthma. I have adhered very generally to your rules, with only the addition of more bread at my breakfast and tea, which you have allowed me. My secretions appear all right. I am, as you saw me, almost a skeleton; but I am in hopes, however, that the wholesome food which I get here will be beneficial." I may remark here, that the months of May and June, in 1855, were unusually cold, the east winds generally prevailing. On the 12th July, my patient wrote: "I am perfectly free from asthma; my appetite is very good, and I greatly desire that my daily allowance may be increased; and the number of my pills, I think, may be reduced." I now ordered five grains of the extract of conium three times a day, and increased his daily allowance of food a little, keeping strictly to the hours of taking it. On the 7th December, my patient informed me: "Notwithstanding the severity of the cold, and the dampness of the atmosphere, I am quite free from asthma. I now take my medicine only twice a day; it appears to have a wonderful effect. I am able to lie down in bed all night; and I sleep six or seven hours at a time, and feel no difficulty in breathing, and I trust this winter I shall be able to remain at home without a return of my fearful disease." On the 17th December, he wrote to say he was still going on well—"Some days since, I imprudently exposed myself too much to the cold and damp, and was consequently seized with a severe shivering fit, and afterwards fever. I was confined to my bed for forty-eight hours; but no asthma made its appearance. I weighed myself last week; and, notwithstanding my late attack, I found I had gained seven pounds in weight since the previous weighing."

Since the date of the last letter, I have occasionally heard from my patient, who still applies to me for advice whenever his complaint, from any imprudence in diet or irregularity, threatens an attack; and, to make my prediction true, I hear he has occasionally resumed his parochial duties as rector of his parish.

Case III. The third case of dyspeptic asthma was also in a clergyman, whose appearance was very different from that of the last, he being stout and lethargic. He came to be under my care from the county of Sussex in 1856. He had been afflicted for seven years, and his difficulty of breathing was constantly on him whilst awake, particularly after a full meal. On examination, I found his lungs greatly oppressed, and dull on percussion; his heart's action was very feeble and slow; his tongue coated and brown; his stomach greatly distended with flatus, which appeared to distress him greatly; the urine was loaded; he was unable to lie down in bed, and had heavy expectoration in the morning. He still performed his parochial duties, though with the greatest difficulty. Having cleared out the bowels by means of an aperient, I placed him on the sedative and strict dietary system, giving three grains of the extract of conium four times a day, with a pill every other night of two grains of each of the extracts of taraxacum and simple aloetic pill.

He came under my medical care on the 1st September. On the 8th of the same month, I had the following *bulletin* from him. "My health improves rapidly under your mode of treatment, and I was able yesterday to repeat the responses at church with ease to myself; and I took a walk without feeling the least oppressed in my breathing or fatigue to myself. I have been afflicted with asthma for more than seven years, and have consulted several eminent physicians without anything like the relief which I even now enjoy. A week only has elapsed since I consulted you; and yet, I am thankful to say, my chest is so much relieved, that I am able to walk several miles without being obliged to rest in order to fetch breath." On the 18th September, he wrote:—"By this time you will be anxious to know how I am going on. The weather has been certainly very fine and clear since I commenced your mode of treatment; but many a year has elapsed since I have had such freedom from pain. On Thursday last, I walked up a steep hill of half a mile without stopping once; and, on the following day, I bore the fatigue of a long journey into Sussex, without finding my chest at all oppressed. Last Sunday was the grand criterion; and I can assure you my voice was remarkably clear, and my chest but scarcely influenced by the enemy." On the 2nd October, he wrote:—"My health, on the whole, is very satisfactory. Since I last wrote to you, the weather has been very cold and stormy; notwithstanding which, I have breathed more freely than I have for many a year, and I now go about the active duties of my calling with confidence."

Another letter, a month afterwards, tells me he is quite well; since which time I have had no communication with my patient, but I learn from his friends that, thinking that he had remained so long free from complaint, he might with impunity return to his former way of eating and drinking whatever came in his way, he has consequently since experienced returns of his complaint, as might naturally be expected; for, as I have before stated, an asthmatic patient, who inherits asthma, can never with impunity eat and drink as other people; and, although I gradually increased the amount of support taken in this case, yet the patient was not satisfied, but allowed his inclination to overrule his better judgment.

The above case must be admitted to be strong proof how much the disease is influenced by the manner in which the office of digestion is performed, and how much the patient has it in his own power to live a life of comparative ease and comfort.

It is my intention to give further proof of the success of this treatment in my next paper.

[*To be continued.*]

Reviews and Notices.

On Obscure Diseases of the Brain and Disorders of the Mind: their incipient Symptoms, Pathology, Diagnosis, Treatment, and Prophylaxis. By Forbes Winslow, M.D., D.C.L.Oxon. Pp. 721. London: Churchill. 1860.

[*Continued from page* 501.]

A dispassionate feeling on the part of the general public—at any rate on the part of the educated classes, to say nothing of the importance of an *intelligent* interest regarding insanity, is one great essential towards progress. But the medical profession must first look at home before it can with justice reflect upon shortcomings in other quarters. The pathology and morbid anatomy of the nervous system, and of the brain especially, have been much neglected. A reference to the *Transactions* of the Pathological Society will prove how much and how little has been really done in advancing cerebral pathology. Let any one observe the perfunctory slicing of the brain in most *post mortem* theatres, and then let him say what is to be expected from that kind of pathological examination of an organ so complicated and diverse in its constituents, so massive and at the same time so delicate in structure.

Dr. Winslow is evidently deeply impressed with this great want of pathological knowledge—his experience has shown him where the stumbling block lies—and his earnest hope evidently is that he may excite the ambition of his readers. Dr. Winslow says:—

"A vast and unexplored region of scientific inquiry is open to the zealous, courageous, and enterprising philosopher, who investigates the subject of *chemico-cerebral pathology*. Much untrodden ground exists in association with this deeply interesting and hitherto neglected subject. Any attempt to unravel, by the aid of chemical science, psychical and nervous phenomena so abstruse, may prove, for a time, unproductive of any practical results; nevertheless, some advantage must accrue from these investigations."

The anatomist and the chemist must work hand in hand. Every day chemical discoveries are being made, and chemical processes are being simplified. Why should *photographical* be so much in advance—as it undoubtedly is—of *pathological* chemistry? The practical physician naturally shrinks from the tedious manipulations of the laboratory, but from him the chemist must receive inspiration. The title of Dr. Winslow's work forbids one to expect that the pathological anatomy of the brain should be fully treated of therein. There will be found, however, in the sections devoted to the subject not only much to set the reader thinking, but, of most valuable information, an earnest given of what may be looked for in the volumes promised to succeed. In thus endeavouring to promote accurate pathological investigation, Dr. Winslow entitles himself to the active support of the rising school of pathological anatomists.

Having thus, as we hope, seconded the leading of Dr. Winslow in his endeavours to promote accurate pathological

investigation, we may now with pleasure turn to the more enticing pages of his book. It is almost supererogatory to say that, for the practitioner who as a student takes it up, the arrangement and classification of the divisions of the subject offer every facility for reference.

The remarkable peculiarity of Dr. Winslow's book is that while the most laborious care has evidently been bestowed on arrangement and classification, it nevertheless possesses the charm of a novel. No medical man, either a general physician or one devoted to a speciality, can have practised his profession during twenty years without having much to tell, from actual experience, as absorbing as the scenes of fiction. Dr. Winslow's speciality is particularly characterised by this contact with the "strange" but "true"; and Dr. Winslow has skilfully made use of his experience and of his opportunities, and has accumulated an immense store of such facts illustrating the subject of his work.

The general outline of the classification comprises the consideration, successively, of the Morbid Phenomena of Intelligence, of Attention, of Memory, of Motion, of Speech, of Sensation, of the Special Senses, of Sleep and Deaming, and of Organic and Nutritive Life.

If we give an analysis of the first of these principal headings, we shall best convey an idea of the completeness of the whole. Thus the Morbid Anatomy of Intelligence includes a consideration of the premonitory symptoms of insanity; the condition of the mind when in a state of aberration, and when recovering from an attack of insanity; the anomalous and masked conditions of the mind; the stages of consciousness, exaltation, mental depression, aberration, and impairment of mind.

We may quote Dr. Winslow's description of the incipient and insidious approach of mental derangement, and certain remarks on masked insanity.

"On investigating the history of those who have become insane, it will be ascertained, that long before any mental disease was apparent, they were subject to fits of apathy, had been in the habit of sitting for hours together in a state of moody abstraction, or brown study, and this, too, at a time when they had important domestic and other duties to occupy their attention.

"Upon analysing the patient's antecedents still more closely, it will be found that, for a long period, there has existed much irregularity and absurdity of thought, eccentricity and singularity of conduct. He has been considered as an oddity in his family, being rarely seen in the domestic circle. When his friends and relations are engaged in social union and converse, he retires quietly to his own room, where he is discovered musing, brooding, and muttering nonsense to himself At other times, he is forward and obstreperous, loud and vociferous, wild, ungovernable, and untrainable. On these occasions, the eyes exhibit a bright, brilliant aspect, and the physiognomy is lighted up by an unnatural degree of intelligence. At other times, the patient is restless, abstracted, and moody, during the day, and at night, slumbers and sleeps uneasily, often, when awaking, complaining of headache, mental confusion, or vertigo. During his sleep, he is occasionally subject to slight attacks of muscular convulsion, somnambulism, temporary illusions of the senses. He is liable to frightful and distressing dreams. All these symptoms are often indicative of the commencement of organic disease of the brain, as well as of alienation of mind.

"In the early period of insanity, the most material elements of character undergo strange transformations. The man naturally remarkable for his caution and circumspection, becomes reckless, extravagant, and imprudent. If orderly and economical, he is confused and prodigal. If noted for his preciseness, he exhibits great carelessness and negligence. If gay and communicative, he is sullen and morose. If previously neat and particular in his dress, he becomes slovenly, dirty, and indifferent as to his attire. If timid, he is brave, resolute, overbearing, and presumptuous. If kind, gentle, and affectionate, he is rude, austere, irritable, and insulting in his intercourse and communications with others. If benevolent, he becomes parsimonious and miserly, hoarding up, with the greatest care, the smallest sums of money, sometimes under the insane apprehension that he will eventually be obliged to go into the workhouse. If, when in health, the patient is known for his attention to his religious duties, he becomes, when insanity is casting its dark shadow over the mind, sadly neglectful of them, not paying even decent respect to the ordinances of religion. The man of business, who never, when well, was found absent from his counting house, or known to neglect his vocation, now shows great indifference as to his affairs, and refuses to take any part in, or even to converse about them."

An unrecognised form of unsoundness of mind, indicated by acts of brutality, is, we fear, of no uncommon occurrence. Dr. Winslow observes:—

"I have referred to a certain morbid mental condition, exhibiting itself exclusively in acts of *cruelty* and *brutality*. This form of unrecognised disorder may exist unassociated with delusion. There is much of this latent and undetected alienation of mind in existence, producing, within the sacred precincts of domestic life, great irregularities of conduct and a fearful amount of domestic misery. It often co-exists with great talents and high attainments, and is compatible with the exercise of active philanthropy and benevolence. The ordinary actions or conversation of those so affected, in many cases, would not convey to a stranger an idea of the existence of such a sad state of the intellect. Howard, the celebrated philanthropist, affords an unhappy illustration of this type of disorder. He is represented to have been a tyrant in his own house. His cruel treatment caused the death of his wife. He was in the habit, for many years after her death, of doing penance before her picture. He had an only son, whom, for the slightest offence, he punished with terrible severity. He was in the habit of making this son stand for hours in a prescribed grotto in the garden. The son became a lunatic, as the result of this brutal treatment. Several similar cases have been brought under my observation."

The adoption of "competitive examination" in the selection of youths for public employment, renders the opinion of an experienced psychologist on the undue straining of the memory in early life of importance. We have marked in italics, in the subjoined passage (from page 624), a maxim which would seem as though prophetically written *à propos* of a recent tragedy:—

"It is with the memory as with other intellectual faculties; the amount of strain to which it is subjected should have an equitable relation to its condition of connate or *normal* vigour. It would be manifestly unphilosophical to subject all memories to the same degree of pressure, or to imagine that, because a few minds are capaple of committing expeditiously and accurately to memory, within a prescribed period, a certain degree of knowledge, every intellect is competent, with facility, to execute a similar task. There are as great differences in the *mental* as in the *physical* capacities of children. It is consequently absurd to deal with them *en masse*, as if the human mind were a mere machine, capable, without scientific discrimination, of the same amount of sustained intellectual labour and rapid progress. It is undoubtedly an important element in education to carefully, steadily, invigorate and discipline the memory in early life; but, in effecting this most desirable object, *it is our duty to avoid mistaking natural mental dulness for culpable idleness, and organic cerebral incapacity for criminal indifference to intellectual culture and educational advancement.*"

May not lay readers gain something by studying psychological medicine? Dr. Winslow asks:—

"Is not every bosom polluted by a dark, leprous spot, corroding ulcer, or portion of moral gangrene? Does there not cling to every mind some melancholy reminiscence of the past, which throws, at times, a sombre tinge over the chequered path of life? We may flatter our pharisaical vanity and human pride, by affirming that we are exempt from these melancholy conditions of moral suffering, and sad states of mental infirmity, but, alas! we should be belying human nature if we were to ignore the existence of such, thank God, only temporary, paroxysmal, and evanescent conditions of unhealthy thought, and abnormal phases of passion, which, occasionally, have been known to cast their withering influence, and death-like shadow over the mind, blighting, saddening, and often crushing the best, kindest, and noblest of human hearts."

But would not many be the happier if they knew that by attention to physical exercise much *or all* of their mental suffering could be avoided? What an instructive case is the one ap-

pended, to say nothing of its fidelity as a picture of the self-denial of too many of the pastors of flocks:—

"A very active and meritorious clergyman, who expended a large portion of his small income in works of charity, told Dr. Wigan in confidence, that after hard study or want of rest, this state of mind made him greatly apprehensive of insanity, and that often when preaching, there would seem to be placed before his eyes some profane book, which the devil tempted him to read in lieu of his sermon! That the more he prayed for aid against the temptation, the more he found himself oppressed by it; *and that at last he discovered that violent efforts for an hour with the dumb bells, or fencing, immediately before service, would entirely remove it.* His great difficulty was to use the necessary exercise without attracting notice. A good gallop would have been the proper course, but the money which should have kept his horse he gave to the poor."

We will conclude this notice by saying that, in respect of the last section of the work, that on the General Principles of Treatment and Prophylaxis, it is in every way a worthy corollary to the preceding sections. The warning given by Dr. Winslow regarding depleting measures cannot be too deeply impressed.

"*Great caution*," Dr. Winslow says, "*is necessary in the use of depleting and antiphlogistic measures. Alas! how often have patients, who have been injudiciously treated by such means, sunk into incurable chronic melancholy.*"

From the context, however, Dr. Winslow is clearly no advocate of the headlong and indiscriminate employment of stimulants, which has lately been rather in vogue.

We can only add that to Dr. Winslow the best thanks of the profession are due. His remarkable work will reflect on medicine the credit it does to himself.

The Medical Knowledge of Shakespeare. By John Bucknill, M.D.Lond. Pp. 292. London: Longman and Co. 1860.

Dr. Bucknill has with great diligence collected from the works of our great dramatist all those passages which can be held to have a medical bearing. His object is to prove that Shakespeare had studied the best medical authorities of his age. In first taking up the book, we feared lest the author's zeal might have led him to claim for Shakespeare the same position in regard to medicine that the present Lord Chancellor has claimed for him in regard to law—that of having been an actual pupil of the profession. The real object of Dr. Bucknill, however, is perhaps best shown in the following paragraph:—

"After a perusal of all the medical works of the period on which I have been able to lay hands, and the institution of a close comparison between them and the works of Shakespeare, I have arrived at the fullest conviction that the great dramatist had, at least, been a diligent student of all medical knowledge existing in his time. It has already been satisfactorily proved by the noble author to whom this work is dedicated, that he had been a diligent student of the law. If it be attempted to argue that Shakespeare had obtained his knowledge, either of law or of medicine, by any formal connection with either of these professions, it must be admitted that the arguments mutually invalidate each other; since the double event, say of his having been both a lawyer's clerk and a doctor's apprentice, is far more improbable than either single event would be. But if the argument only be urged that Shakespeare had been a diligent student both of medicine and law, not for professional purposes, but for the sake of increasing his general information, it would seem that the evidence of diligent study in either department of knowledge would fortify the evidence of such study in the other department; for the great hungry mind, which had an appetite for all accessible knowledge, in one of the large divisions into which the knowledge of cause and effect may be separated, would, in all probability, be far from satisfied without appropriating to itself the counterpart of such knowledge from the complementary department." (Pp. 290-1.)

After all, is it really worth while to write a book to show that Shakespeare's mind was imbued with the medical information of his time? The extensive—not to say universal—nature of his acquirements is so fully recognised, that the fair way, and the most interesting, of treating the subject, would be to give such an analysis of his writings as would show his acquaintance, not with law and medicine alone, but with all the prominent facts of all known professions and callings. Again, as to medicine, might not a claim to the possession of a certain amount of knowledge be set up in favour of several of the old poets? Nevertheless, Dr. Bucknill must be acknowledged to have produced a work of much pleasant labour, and very interesting to all admirers of Shakespeare.

British Medical Journal.

SATURDAY, JULY 28th, 1860.

RAILWAY ARRANGEMENTS FOR THE ANNUAL MEETING.

We desire to call the attention of the Associates to the liberal arrangements which have been made by several of the Railway Companies for the convenience of members of the Association who are about to attend the Annual Meeting at Torquay. An outline of these arrangements will be found at p. 585. It will be seen, for instance, that members proceeding by the Great Western line can avail themselves of family or tourists' tickets, provided they form parties of at least three; or, if they go singly, their return tickets will be available for a week. In the matter of expense, the former plan—that of the family tickets—is the most economical.

SPECIAL HOSPITALS.

Our leader on Special Hospitals in the Journal of June 16th, has borne fruit sooner than we expected. It has aroused the hospital physicians and surgeons of the metropolis and the provinces to protest boldly at once against an evil which is felt to be a growing one, and which, if not checked, will end in draining our great centres of clinical instruction of their best cases and of their funds at the same time. Unless we are prepared to say to students, "Dispersion is better than centralisation; you had better spend your mornings in driving furiously in Hansom cabs from special hospital to special hospital—taking a turn for half an hour at the Rectum Institution, then looking into the Cancer Establishment, dashing back for a few minutes with the Inverted Eyelash extirpators"—if we are not prepared to give the medical student a peripatetic life—the profession, and the medical press as its mouthpiece, must make a stand for the old hospitals, the ample expanse of which has given us so many great physicians and surgeons. In saying this, however, we do not wish it to be supposed that we altogether ignore certain advantages which undoubtedly pertain to special hospitals, as regards their teaching power in a limited sense. A dozen cases of any particular disease, seen side by side, and viewed by the light they throw upon each other, would undoubtedly be more instructive than a dozen similar cases, watched at long intervals and under different circumstances. Comparison is a very powerful element in the right estimate of disease; and comparison, without doubt, can be afforded to the student better in the special hospital than in the general hospital.

At the risk of being considered to have wandered from our mark, we cannot help comparing the General Hospital, as at present conducted, with the general shop. You may get a great variety of cases in the former, but you miss the power of selection as regards one particular class of disease. It may be asked, Cannot we combine the general and the special hospital, as they combine the general and particular trade in shops? If we have in commerce such establishments as Marshall and Snellgrove, and Shoolbred and Co., surely we may have in medical science our establishments, where different departments under one roof shall take the place of separate establishments—where we may have special wards, in fact, instead of special hospitals. Those who have seen the great hospitals of Vienna, and many other continental capitals, must have been struck with the vast amount of clinical instruction that is afforded to the student in this manner. He may review in one ward fifty cases of dropsy; in another, a large group of chest-diseases; in a third, skin-diseases; in a fourth, the special diseases of women. In this manner the whole diapason of disease, if we may so term it, is brought within his ken; and he has the power of dealing with the most comprehensive groups of cases, in place of having to contemplate a chaos of individual cases. What we want is to organise disease, so that we may be enabled to contemplate it in the most convenient manner; and this can only be done effectually by giving special wards to hospitals in place of breaking them up into separate institutions. Such an arrangement would not only meet the difficulty to which we have before alluded with respect to the selection of cases, but it would meet the financial difficulty. A dozen large wards under one roof, and superintended by one staff, would cost infinitely less than a dozen small special hospitals with their separate establishments.

We know it will be urged that the tendency of opinion is rather to a dispersal than a concentration of hospital patients; but this opinion is undoubtedly formed in consequence of the utter want of all sanitary arrangements which, as a rule, obtains in our hospital architecture. If we would only take a hint from the Lariboisière Hospital in Paris, we may still concentrate our patients without any fear; but if we will persist in erecting such structures as that on Southampton Water, of course we must abide the consequences. But even with the substitution of special wards in existing hospitals for special hospitals, we cannot help thinking that one more reform is necessary as regards the *personnel* of these establishments. It is the great complaint amongst all able but unplaced medical men in the metropolis, that they can only obtain admission as medical officers in our old established hospitals by a miracle; and this is given as a reason for the erection of so many new hospitals. Without doubt, there is much truth in this complaint. Our great hospitals are too much like the select vestries of old, and new blood is as obnoxious to them as new wine would be to a diner out. There are some hospitals which pride themselves, not on possessing the best men in the profession on their staff, but on their all being Oxford or Cambridge men! There are others, again, which believe in hereditary descent as the ruling power, and which elect their physicians or surgeons because they happen to be the sons, or grandsons, or nephews of great men who once were upon the staff. We are afraid there is a great deal too much of this childish method of staff-recruiting going on, and that able outsiders have some reason to complain of it. If fair play were only given to the rising ability of gentlemen who may not happen to be blest with a powerful acquaintance among hospital governors, possibly much of the present tendency towards special hospitals would be checked. However, it is our duty to fight against the positive evil as it now presents itself, leaving to the future the removal of its causes; and towards that end we have much pleasure in appending the following protest against special hospitals from the leading members of both branches of our profession:—

"We, the undersigned, are of opinion that much detriment to the public and to the medical profession arises from the modern practice of opening small institutions, under the name of hospitals, for particular forms of disease, in the treatment of which no other management, appliance, or attention is required, than is already supplied in the existing general hospitals.

"The practice is injurious—First, because, in the maintenance of numerous small establishments, the funds designed for the direct relief of the sick poor are wasted in the useless multiplication of expensive buildings, salaries, and hospital appliances, and in the custom of constantly advertising to attract public attention.

"Secondly, because the public is led to believe that particular classes of disease can be more successfully treated in the small special institutions than in the general hospitals—an assumption directly contrary to evidence; the fact being, that the resources of the general hospitals are in every respect superior to those of the special institutions alluded to.

"Thirdly, because it is essential for the interests of the public, with a view to the efficient education of students preparing themselves for the practice of the medical profession, that all forms of disease should, as far as possible, be collected in the general hospitals to which medical schools are attached.

"As an example that the evil referred to is increasing, we regret to observe that an attempt is being made to set on foot a special hospital for the treatment of stone and diseases of the urinary organs. We desire to express our opinion that such an institution is especially unnecessary; the existing general hospitals provide ample accommodation for the treatment of all these maladies; *no case is ever refused admission into them;* there are no diseases which receive more care, attention, and skilful management; and there are no men in this or any other country who have greater experience in treating them, than the surgeons of our general hospitals.

"*Signed by*—Sir Benjamin C. Brodie, Bart., President of the Royal Society; Joseph H. Green, F.R.S., President of the Medical Council; Thos. Mayo, M.D., F.R.S., President of the Royal College of Physicians; J. F. South, President of the Royal College of Surgeons; James Moncrieff Arnott, F.R.S., late President of the Royal College of Surgeons; Sir Charles Locock, Bart., Physician-Accoucheur to the Queen; P. M. Latham, M.D., Physician Extraordinary to the Queen; T. Watson, M.D., F.R.S., Physician Extraordinary to the Queen; W. Gibson, M.D., C.B., Director-General of the Army Medical Department; Sir J. Liddell, C.B., F.R.S., M.D., Director-General of the Navy Medical Department; Sir J. Ranald Martin, C.B., F.R.S., Physician to the Council of India; B. G. Babington, M.D., F.R.S., President of the Epidemiological Society; Sir Charles Hastings, M.D., President of the Council of the British Medical Association; J. H. James, F.R.C.S., Consulting Surgeon to the Devon and Exeter Hospital; J. A. Symonds, M.D., Consulting Physician to the Bristol General Hospital; and many others."

The following letter accompanied Sir Benjamin Brodie's signature:—

"Broome Park, Betchworth, Surrey, July 16, 1860.

"DEAR SIRS,—Agreeing in the views expressed in the paper which you have sent me, I am happy to add my signature to it.

"An exception, indeed, may be made, on grounds which meet with the general concurrence of the profession and the public, in regard to Ophthalmic Infirmaries. Otherwise it seems to me there are very great objections to the establishment of special hospitals for the treatment of particular diseases.

"*First.* Diseases generally are so connected with each other, and a knowledge of one is so necessary to the right understanding of another, that no one who limits his attention to any given disease, can be so competent to investigate its nature,

and to improve the method of treating it, as those who have a wider field of observation, and who are better acquainted with general pathology.

"*Secondly.* The effect of establishing special hospitals and infirmaries is to abstract particular classes of disease from the general hospitals, and thus to prevent the students of those hospitals from having the opportunity of studying certain branches of their profession, an acquaintance with which is necessary to make them useful practitioners afterwards.

"*Thirdly.* The system of establishing special hospitals, which now prevails, is a source of much unnecessary expense to the public; each one of these, however humble it may be, requiring a separate house, and a separate establishment of matron, nurses, and servants. At least two-thirds of the expense thus incurred would be saved, if the patients who are there admitted were sent to the existing general hospitals instead; and it cannot be said that in these last there is no room for their reception, there being several which are languishing for want of funds, with their wards empty because the means of supporting them have been drawn away to other institutions.

"I am, dear sirs, yours truly,

"Benjamin C. Brodie.

"To the Members of the Deputation appointed by the representatives of the Medical Staffs of General Hospitals."

DROPS OR MINIMS.

Notwithstanding all that has been said and written on the essential difference which exists between a "drop" and a "minim", and the danger which must often arise from the use of the former in prescribing the more powerful fluid medicines, there is still much room for improvement. The subject was brought forward in a trial which took place at Lewes, in the Crown Court of the Home Circuit, before the Lord Chief Justice, on Monday last. The prisoner, a young man named George Bull, was charged with the manslaughter of his mother. The deceased lady was 66 years of age; she was subject to violent fits of sickness, and the prisoner, who had been brought up to the medical profession, but was not in regular practice, was in the habit of prescribing to her small doses of prussic acid, of Scheele's strength. On Wednesday, the 11th of July, the prisoner procured a drachm of prussic acid from Mr. Roswell, a chemist in the town, and he administered to the deceased in the early part of the day a dose of four minims. In the evening, the prisoner administered to her another dose of prussic acid; and the deceased had hardly time to go up to her bedroom when she became insensible, and died almost immediately afterwards. Upon the bottle that had contained the prussic acid which the prisoner obtained from Mr. Roswell being examined, it was found to contain only twenty-five minims, thus leaving thirty-one minims altogether unaccounted for.

Mr. Scrase of Lewes, the surgeon who had been called in to attend on the deceased, stated that the prisoner told him that he had given seven *drops* of prussic acid. In answer to questions from the Lord Chief Justice, Mr. Scrase observed that the size of the drop would be affected by the fact of the cork remaining partly in the bottle. It was his own practice to measure by minims; and, he observed, with such a deadly matter as prussic acid, it was not prudent for any medical man to rely upon drops; he ought to measure it. These, and some other observations on the relative strength of Scheele's and the *Pharmacopœia* acids, are what would be expected from a tolerably well informed and judiciously cautious medical man; but, in contrast, here is the examination of the druggist who sold the prussic acid:—

"Mr. E. H. Roswell, a druggist at Lewes, deposed that on the 11th of July the prisoner came to his shop, and asked for some prussic acid, and he gave him a drachm. The drachm would contain sixty minims. He did not measure it, but gave what he considered to be one-fourth part of the bottle.

"Mr. Serjeant Ballantine: As you say you did not measure it, can you tell us how much prussic acid you really did give to this gentleman?

"Witness: I cannot say to a drop. I am sure he had fifty drops. I consider a 'drop' and a 'minim' synonymous terms. I gave the prisoner about the quantity, but when prussic acid is dispensed by a medical man, he is, of course, careful as to the quantity he uses.

"The Lord Chief Justice: We have been told that a 'drop' contains two minims, and this witness says he looks upon the two terms as synonymous.

"Mr. Serjeant Ballantine: If you were told to give a patient so many 'minims,' should you give him so many 'drops?'

"Witness: Certainly not.

"Mr. Serjeant Ballantine: Can you tell us the strength of the acid you sold?

"Witness: I don't know what strength it was. I should think about four per cent.

"Mr. Serjeant Ballantine: I am much obliged to you for your candid answers in reference to such an article as prussic acid."

Here is a man who looks on the terms "drop" and "minim" as synonymous, and, when asked for prussic acid, pours into the bottle what he considers to be "about the quantity"! We presume that Mr. Roswell is not a member of the Pharmaceutical Society, or in the habit of reading their publications. If he had seen the number of the *Pharmaceutical Journal* for the present month, he would have seen that a writer therein has elaborately demonstrated the fact—of which many members of the medical profession are probably already aware—of the utter want of definite proportion between the drop and the minim, and the consequent impossibility of using them with safety as convertible terms in prescribing.

The writer referred to, Mr. Barnard Proctor, states that he has ascertained the number of drops equal to a drachm of various essential oils, etc. The results are most strikingly various. To make a drachm, 100 drops of croton oil are required; of oil of carraway, 98 drops; of oil of peppermint, 110; of oil of cloves, 90; of chloroform, 250; of tincture of digitalis, 96; of tincture of opium, 108; of creasote, 110; of hydrochloric acid, 45; of *dilute* hydrochloric acid, 65; of nitric acid, 72; of hydrocyanic acid, 54. The size of the drop, Mr. Proctor observes, is not affected by the comparative fluidity of the liquid, or by the thickness of the lip of the bottle; but by the manner in which the dropping is performed. Fifty-four drops of hydrocyanic acid equalled a drachm, when each drop fell clearly from the lip of the phial; but if the stopper were not entirely removed, and the drop fell conjointly from the stopper and the lip, thirty-two drops filled the same measure.

The drop or minim question is by no means a small one. A life may depend on it; and, short of this, how is it possible for any one dispensing medicine by drops to have an idea whether he is doing too much or too little? Suppose, for instance, that he is using a new fluid preparation, of which he is told that the dose is so many *minims*: how can he, if he have proper regard either to the advantage or

safety of his patient or to his own reputation, administer it in that most latitudinarian measure, the *drop!*

We would call the attention of our readers to the importance of the difference between the drop and the minim, as a matter of scientific as well as of practical interest in medicine.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Twenty-Eighth Annual Meeting of the British Medical Association will be holden in Torquay, on Wednesday, Thursday, and Friday, the 1st, 2nd, and 3rd days of August.

President—JAMES R. W. VOSE, M.D., F.R.C.P., Liverpool.

President-elect—C. RADCLYFFE HALL, M.D., F.R.C.P.L. and E., Torquay.

The Meetings of the Association will take place in the Bath Saloon.

WEDNESDAY, *August 1st.*

1 P.M. Meeting of Committee of Council at the Torquay Club.

2.30 P.M. Meeting of General Council of the Association at the Torquay Club.

7 P.M. First General Meeting of the Association in the Bath Saloon. The retiring President will make a few remarks. The new President will deliver an Address. The Report of Council will be presented, and other business transacted.

THURSDAY, *August 2nd.*

8.30 A.M. Public Breakfast at the Royal Hotel.

10 A.M. Meeting of the Members of the new Council.

11 A.M. Second General Meeting of Members. The Address in Medicine will be delivered by C. BARHAM, M.D., of Truro. Papers and Cases will be read. The Meeting will adjourn at One, and reassemble at Two.

2 P.M. The Report of the Benevolent Fund will be received, and Papers and Cases will be read. An Address in Ophthalmic Surgery will be delivered by W. J. SQUARE, Esq., of Plymouth. The meeting will adjourn at Five.

8.30 P.M. *Soirée* at the Bath Saloon.

FRIDAY, *August 3rd.*

11 A.M. Third General Meeting of Members. The Address in Surgery will be delivered by P. C. DE LA GARDE, Esq., of Exeter. Papers and Cases will be read.

6 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each.

Gentlemen intending to be present at the Dinner, are requested to send notice, as early as possible, to WILLIAM POLLARD, Jun., Esq., Park Crescent, Torquay.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the Torquay Club; where cards will be supplied which will secure admission to all the Proceedings, and contain such information as may be useful to those who are strangers to the town.

Members who wish for previous information may communicate with W. POLLARD, Jun., Esq., Torquay.

It is particularly requested that all members who propose to read papers, will communicate with the General Secretary without delay. Papers are promised by Dr. Brown-Séquard; Dr. Wool ston; Dr. W. Budd; Dr. B. W. Richardson; Dr. W. O. Markham; Dr. J. C. Bucknill; Dr. Edward Smith; W. W. Morris, Esq.; Dr. Thudichum; and Dr. Wm. Davies.

Among the principal Hotels, are—the Royal; the Queen's; the Commercial; the Union; the London Inn.

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, July 3rd, 1860.

LETTERS AND COMMUNICATIONS.

Letters or communications for the JOURNAL should be addressed to Dr. WYNTER, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the JOURNAL, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

RAILWAY ARRANGEMENTS FOR THE ANNUAL MEETING AT TORQUAY.

THE Great Western, and the London and South Western lines, will grant RETURN TICKETS to Torquay from any of their stations where they book through to Torquay, to *members of the Association and their friends*, on showing their cards; to hold good from the 31st instant to August 6th, with power to break the journey at Exeter either in going or returning. Fare to Torquay by second class, 44*s.*

The South Devon and Cornwall will grant RETURN TICKETS from any station on their lines to Torquay; to hold good from August 1st to 4th.

The Great Western Railway Company also grant FAMILY TICKETS to Torquay, available for twenty-eight days, to parties of not less than three persons. Fare: first class, 50*s.*; second class, 35*s.* The tickets are available for returning by any train and at any time within the specified period.

By the Midland line, an EXCURSION TICKET, holding good for twenty-eight days, to Torquay and back, will be the most convenient arrangement.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held in Birmingham, on Thursday, the 19th instant.

PRESENT:—Sir C. Hastings (in the Chair); Mr. Bartleet; Dr. A. P. Stewart; Dr. A. T. H. Waters; Mr. Watkin Williams; and Dr. P. H. Williams.

The Report of Council, proposed to be presented at the approaching Annual Meeting, was carefully considered and approved.

The Programme of the Annual Meeting (at Torquay) was considered to be highly satisfactory.

The Rules of the Shropshire *Scientific* Branch of the British Medical Association were read, and found to be consistent with the Laws of the Parent Society. The Branch was formed in accordance with Law 25, and sanctioned by the Committee.

CHARLES HASTINGS.

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, July 23rd, 1860.

CAMBRIDGE AND HUNTINGDON BRANCH: ANNUAL MEETING.

THE Annual Meeting of the above Branch was held at Cambridge, on July 10th, 1860; G. E. PAGET, M.D., in the Chair. There were also present:—E. Adcock, Esq. (Cambridge); D. B. Baldwin, Esq. (Royston); J. T. Beck, Esq. (Cambridge); John Bridger, Esq. (Cottenham); G. Bullen, sen., Esq. (Ipswich); J. B. Bumpsted, Esq. (Cambridge); J. Carter, Esq. (Cambridge); E. Carver, M.D. (Huntingdon); W. Cooper, Esq. (Bury St. Edmunds); H. Cribb, Esq. (Bishops Stortford); C. P. Daniell, Esq. (Swavesey); J. Deighton, Esq. (Cambridge); R. S. Ellis, Esq. (Wellingham); R. Faircloth, Esq. (Newmarket); W. Few, Esq. (Ramsey); W. W. Fisher, M.D. (Cambridge); J. T. Foster, Esq. (Cambridge); O. Foster, Esq. (Hitchin); C. Gaffney, Esq. (Buntingford); T. Green, Esq. (Cambridge); A. R. Graham, Esq. (St. Peter's College); F. H. Harris, Esq. (Mildenhall); H. J. Haviland, M.D. (Cambridge); G. F. Helm, Esq. (London); J. H. Hemming, Esq. (Kimbolton); J. Hooper, M.D. (Hoddesdon); C. H. Humphry, Esq. (Cambridge); G. M. Humphry, M.D. (Cambridge); J. Jenkins, Esq. (Bassingbourne); E. Knowles, Esq. (Cambridge); L. Newton, Esq. (Alconbury); T. O'Connor, Esq. (March); B. Pinchard, M.D. (Cottenham); J. Prince, Esq. (Balsham); T. Prince, Esq. (Balsham); A. Ramsay, M.D. (Great Shelford); W. H. Ranking, M.D. (Norwich); E. W. Richards, Esq. (Great Barfield); H. Rust, Esq. (Withersfield); H. S. Shickle, Esq. (Cambridge); W. Simpson, Esq. (Haverhill); H. C. B. Steele, Esq. (Stoke Ferry); A. R. Temple, Esq. (Cambridge); W. J. Tubbs, Esq. (Tipwell); T. G. Wales, jun., Esq. (Downham); G. Wallis, Esq. (Cambridge); and H. Welsh, Esq. (Saffron Walden).

Resolutions. The accompanying resolutions were passed:—

1. Proposed by Mr. FEW, and seconded by Dr. CARVER—

"That the Annual Meeting be held next year at Huntingdon, and that M. Foster, Esq., be requested to act as President."

2. Proposed by Dr. Haviland, and seconded by Dr. Pinchard—"That Dr. Whitsed, Mr. Carter, Dr. Fisher, Mr. Hammond, with the President, President-elect, and Secretary, be elected the Council of the Branch for the ensuing year; and that they be empowered to elect officers for the year in case of vacancies."

3. Proposed by Mr. Carter, and seconded by Mr. Tubbs—"That the President and President-elect be elected representatives of the Branch in the General Council of the Association for the ensuing year."

Papers and Communications. The following communications were made:—

1. On the Newly Proposed Treatment of Inflammation. By James Carter, Esq. of Cambridge. [This led to a discussion, in which Mr. John Prince of Balsham, Mr. Green of Cambridge, Mr. Steele of Stoke Ferry, Dr. Hooper of Hoddesden, Dr. Ranking of Norwich, and the President, took part. The general opinion was, that practitioners in former days were not so much mistaken in their treatment of inflammation as we are now apt to suppose. The use of the lancet was often attended with great benefit; but that the type of disease has undergone a change, and that bleeding is now rarely required, though it may still be sometimes employed with great benefit. All agreed that the important point is not to treat diseases by name, but to decide in each particular case upon the merits of the case itself, irrespective of prevalent theories. One case of inflammation may require bleeding, another stimulants, and a third merely rest and low diet.]

2. Case of Pneumothorax, with Dissecting Aneurism. By W. H. Ranking, M.D.Cantab., of Norwich.

3. Case of Primary Sore, resulting from contact with a patient suffering under Secondary Syphilis. By George Johnson, Esq., of Cambridge.

4. Case of Epilepsy, with some uncommon Symptoms. By G. E. Paget, M.D.

5. On the Treatment of Wounds and Patients after Operations. By G. M. Humphry, M.D.

6. Dr. Pinchard exhibited a lad with Ectopia Vesicæ. There was deficiency of the lower part of the abdominal wall, of the symphysis pubis, and of the fore part of the bladder, as well as of the upper wall of the urethra.

Other cases and specimens were exhibited:—1. A cast, sent by Dr. Ward of London, of an enormous congenital encephaloid cancer tumour, originating in the glands under the lower jaw. It was remarkable that the mass had been no impediment to the progress of labour. 2. An infant with deficiency of the upper wall of the urethra from the bladder to the extremity of the penis. 3. An infant with extensive nævus on the occiput; another involving the whole thickness of both eyelids, and scattered nævi behind and in front of the ear and upon the side of the forehead. The child had for some time been under Dr. Humphry's care. Various modes of treatment had been employed, including setons soaked in perchloride of iron, injections of perchloride of iron, Marshall's battery, nitric acid and potassa fusa. The two last only had produced any decided effect.

Mr. Bullen of Ipswich exhibited an Oxalate of Lime Calculus, weighing seven ounces. It was extracted from the bladder of a girl, aged 14, through the urethra. It broke under the forceps, and was extracted in pieces. So little injury was done to the soft parts, that the child was able to retain her urine the next day; and no incontinence of urine followed.

Mr. Bullen related a case in which he performed Lithotrity. A large quantity of lithic acid *débris* passed. Subsequently, the symptoms of stone continuing, Mr. Bullen performed lithotomy, and removed a quantity of calculous matter, composed entirely of triple phosphate. There was not a particle of the original calculus left. It was clear, therefore, that it had been quite removed by means of lithotrity, and the subsequent calculus was an entirely new formation.

Dr. Carver of Huntingdon showed specimens of Congenital Obstruction of the Bowels, taken from twins. The condition was the same in each case.

Dinner. The dinner at the Town Hall was numerously attended; the party including the Vice Chancellor of the University, Mr. James Paget of London, and others.

In replying to the toast of the University, which had been proposed by John Muriel, Esq., of Ely, the Vice Chancellor remarked on the increasing interest which the subject of medical education was now creating in the University, and the greater facilities for medical study which were provided. He trusted that this would be followed by an increase in the number of medical students who went to the University, and would so lead to a closer union between the University and the profession.

In the evening, the members were entertained at the house of the President, where the Masters of St. Peter's and Christ's Colleges, Professors Stokes and Challis, and other distinguished members of the University, had been invited to meet them; and where they found a great variety to interest and instruct, including specimens of natural history and geology, microscopes, photographs, and numerous surgical and scientific instruments.

READING BRANCH: ANNUAL MEETING.

The Fifth Annual Meeting of this Branch was held at the Council Chamber, Reading, on Wednesday, July 18th; R. T. Woodhouse, M.D., President, in the Chair. There were also present: C. M. Burnett, M.D. (Alton); G. D. Brown, Esq. (Henley-on-Thames): N. Crisp, Esq. (Swallowfield); I. Harrinson, Esq. (Reading); T. Jeston, Esq. (Henley-on-Thames); S. Kedgill, Esq. Pangbourne); G. May, Esq. (Reading); G. May, jun., Esq. (Reading); W. W. Moxhay, Esq. (Reading); J. McIntyre, M.D. (Odiham); H. H. Sheppard, Esq. (Sonning); J. Taylor, Esq. (Wargrave); H. Waldron, Esq. (Theale); T. L. Walford, Esq. (Reading); E. Wells, M.D. (Reading); J. W. Workman, Esq. (Reading); W. B. Young, Esq. (Reading).

The President delivered an address, which he was unanimously requested to publish in the British Medical Journal.

Officers and Council for 1860-1. The following officers and Council were elected:—*President-elect:* T. Jeston, Esq.; *Representative in the General Council:* H. H. Sheppard, Esq. *Council:* W. B. Young, Esq.; E. Wells, M.D.; R. T. Woodhouse, M.D.; J. W. Workman, Esq.; and G. D. Brown, Esq. *Secretary:* G. May, jun., Esq.

The Journal. Dr. Wells introduced a discussion on the merits of the Journal, and expressed the general opinion of the meeting when he stated that it was not worthy of its position as the organ of the British Medical Association.

Communication. Mr. Crisp read the Annual Retrospective Address of the Reading Pathological Society, which, in compliance with the wishes of the meeting, will be published in the Journal.

Dinner. The dinner took place at the George Hotel, and the members separated after a more than usually interesting and instructive meeting.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 26th, 1860.

F. C. Skey, Esq., F.R.S., President, in the Chair.

OBSERVATIONS ON THE MORBID ANATOMY, PATHOLOGY, AND DETERMINING CAUSE OF EMPHYSEMA OF THE LUNGS.

BY A. T. H. WATERS, M.R.C.P.

[*Communicated by* Dr. Ogle.]

Although much has been written on the subject of pulmonary emphysema, there are yet many points in connection with it which require investigation. There is perhaps no disease the symptoms and physical signs of which are so readily explicable, from a knowledge of the structural changes by which it is accompanied, as this particular affection, and hence an acquaintance with the minute anatomy of the healthy lung tissue becomes of the utmost importance, in order fully to appreciate the mordid changes which take place.

(Here follows a brief description of the arrangement of the "ultimate pulmonary tissue".)

Pulmonary emphysema is of two kinds—1. Interlobular emphysema. 2. Vesicular emphysema. The second, or vesicular, is by far the most important, and will be alone considered. It exists in three forms, differing only in the extent to which they involve the lung.

1. *Partial Lobular Emphysema*, involving a few air-sacs, or at most only a single lobulette. This is not often seen as an independent affection; but in lungs which are the seat of the second form it occasionally exists in small patches along the

margins of the lobes. These patches resemble small vesicles, and when numerous have somewhat the appearance of a row of beads.

2. *Lobular Emphysema.* This is the form most frequently met with. It involves one or more lobules in different parts of the lung, and is especially found along the margins of the base, the anterior border, and at the apex. It frequently exists in connection with phthisis, and occasionally with pneumonia. In this form it is easy to trace the divisions of the lung; the boundary walls of the lobules have not usually given way, and generally no interlobular emphysema exists. The air-sacs of a lobule are not necessarily all equally dilated, those at the circumference being most so. The emphysematous lobules may be seen projecting above the level of the lung, and in some instances they become developed into "appendages".

3. *Lobar Emphysema.* This form involves the whole of a lobe, or an entire lung, or very frequently both lungs. It constitutes a very formidable affection, and often destroys life at an early period. The lung is much increased in size. The outlines of the lobules frequently cannot be distinctly seen, in consequence of the rupture of their boundary walls, and the production of interlobular emphysema.

In investigating the morbid anatomy of emphysematous lungs, the same methods of preparation were used by the author as had been previously employed in the examination of the healthy organ—viz., injection, inflation, and desiccation.

With regard to the structural changes which take place in the disease, we recognise, in the early stages, a simple dilatation of the air-sacs, and a diminution in the height of the alveolar partitions. A further dilatation takes place, with more or less complete obliteration of the alveolar septa. This distension produces a divergence of the elastic fibres of the air-sacs, and is soon followed by a perforation of the walls themselves, so as to give in the advanced stage a perfectly cribriform appearance to the membrane of which the walls are formed. This is followed by rupture of the elastic fibres, a further distension of the air-sacs, with a general breaking down of their walls, so that in the most advanced stages of the disease large cavities are found, traversed in all directions by membranous shreds or fibrous cords. The inner surface of the emphysematous lung tissue presents the same microscopic appearances as that of the healthy tissue.

In some lungs in which lobular emphysema existed, the air-sacs were found much distended, but no perforations existed; whilst in others, and especially where the disease was of the lobar kind, extensive perforations were found, with not more, and in some instances less, dilatation that in the former. This would seem to indicate some degeneration of tissue in the one case, which might be absent in the other.

The condition of the blood-vessels explains the anæmic appearance of the emphysematous lung. In the earlier stages, the capillaries of the pulmonary plexus are wider apart than in health; and as the walls of the air-sacs are perforated, and the latter more distended, the capillaries become ruptured and absorbed. The vascularity of the lung, in a condition of advanced emphysema, is very slight.

The bronchial tubes are usually dilated in old-standing cases of emphysema, their mucous membrane is pale, and there is increased development of the circular muscular fibres.

An important question in connection with emphysema is, whether the disease is preceded by, or attended with, any degeneration of tissue.

With regard to the existence of fatty matter in the emphysematous lung, a considerable number of specimens were examined with great care; and although in one or two instances indications of its presence were found, as a rule it was entirely absent. Dr. Jenner has stated that a fibrous degeneration frequently exists. A number of specimens were examined to ascertain whether any alteration of this kind could be observed in the elastic fibres, as compared with those of the healthy lung. The results arrived at on this point were imperfect, and the question is left for future investigation. Some kind of degeneration is believed in many cases to exist.

With reference to the determining cause of pulmonary emphysema, the view that the disease is produced by expiratory efforts appears to the author the most tenable.

Serious objections seem to present themselves to the theory advocated by Dr. Gairdner, that the disease results from increased distension, during inspiration, of one part of the lung, in order to fill the space previously occupied by a collapsed portion. During inspiration, the chest expands to make room for the dilating lung; air is drawn equally to all parts of the lung, and is not driven by any external force to one part more than to another. It is difficult, therefore, to understand how an excessive quantity of air should find its way to any particular portion. If the chest must reach a certain expansion, it would rather appear that the entire lung would be everywhere slightly dilated, except where collapsed; or else that those parts nearest the collapsed portions would be most distended. Such parts, however, are not the most frequent seats of emphysema. Further, the lungs can undergo very considerable distension without suffering any injury. Although the lungs undergo equable pressure during ordinary expiration, this by no means proves that such is the case during acts of coughing; in fact, the contrary is true, as has been shown by Dr. Jenner. The conformation of the walls of the chest, and of the lungs, seems to render it necessary that the latter should undergo unequal compression during violent expiratory efforts with a partially closed glottis, and that air should be driven first to those parts of the lungs where the walls are least resisting, and secondly to those portions which contain the least volume of air. The least resisting part of the thoracic walls is that which covers the apex of the lung; it consists of a membranous expansion, and plays no active part in the expiratory process. As a fact, we find, in coughing, that the lung bulges into the lower part of the neck. The parts of the lung which contain the least volume of air are the margins. These are out of the direct line of pressure which the lung undergoes in violent expiratory efforts, which are chiefly effected by the abdominal muscles, especially the recti. The contraction of these latter muscles, forcing upwards the abdominal viscera and the diaphragm, produces the greatest amount of compression at the base of each lung; the air is driven upwards in a strong current, which overcomes the current from the other portions, and these, instead of becoming emptied, remain forcibly distended.

The phenomena witnessed in M. Groux, probably seen by many of the Fellows present, may be adduced in support of the view that during coughing the lungs become distended in any part where the walls of the chest offer but little resistance.

Lastly, the cases recorded in a paper written by M. Guillot—in which what he describes as subpleural emphysema was found after death, preceded by long-continued and violent spasmodic cough—may be cited in favour of the expiratory theory of the production of the disease, a theory to which anatomical arrangement and physiological phenomena seem to point.

ON GLAUCOMA AND ITS SURGICAL TREATMENT.

BY J. W. HULKE, ESQ., F.R.C.S.

THE author referred to a paper On the Morbid Anatomy and Pathology of Glaucoma, communicated by him to the Society in December 1857. Since then, the treatment of glaucoma by iridectomy has been extensively practised in the Royal London Ophthalmic Hospital and in private, and the results have been so very successful that the author was desirous of bringing the operation under the notice of the Society. Mr. HULKE gave an outline of the symptoms, the ophthalmoscopic signs, and the morbid anatomy of glaucoma. There are two forms of this disease—an acute and a chronic; but many cases have an intermediate character. In 75 per cent. or more of all cases, the active stage is preceded by a premonitory period. In acute cases the transition is abrupt; in chronic cases it takes place by insensible gradations.

Premonitory Symptoms. These are, rapidly increasing presbyopia; the appearance of a coloured halo round the flame of a candle; the spontaneous appearance of flashes and other spectra; intercurrent obscuration of vision, attended with vague orbital and frontal pains, slight hardness of the eyeball, and contraction of the field of vision. The pupil is large and sluggish; the size of the anterior chamber is much diminished. The duration and intensity of these symptoms are very variable, but they are rarely absent.

Acute Glaucoma. The active stage sets in as a sudden and violent outbreak, often at night. There is violent racking pain in the eyeball, often attended with sickness, and followed by rapid extinction of sight. The pupil is widely dilated and motionless; and the lens has sometimes the peculiar greenish tint which was formerly considered so characteristic. The ciliary vessels are swollen; the conjunctiva is red and often chemosed; the globe is very hard; the cornea is dull, and its sensibility is lowered. Remissions are followed by fresh paroxysms: and complete irremediable blindness always ensues.

Chronic Glaucoma. The premonitory period slowly glides into the active. The obscurations, which are at first evanescent and separated by long intervals, become more frequent,

and last longer. The contraction of the visual field progresses. The tension of the globe increases. The iris becomes dull; the aqueous humour turbid; the cornea dimmed and flattened. Mr. Hulke laid stress on the flattening of the cornea, which is easily demonstrated, because it has been recently stated that the cornea becomes conical in glaucoma.

Ophthalmoscopic Signs. There are excavation of the optic nerve entrance, and pulsation of the retinal vessels. To these, capillary apoplexy of the retina is often added; and sometimes there are small blood-clots in the vitreous humour, which is unnaturally firm. It is only late in the disease, when all the component structures are undergoing atrophy, that the vitreous humour becomes fluid.

Nature and Causes. All the leading features of glaucoma are due to excessive tension of the eyeball from a superabundance of fluid within it, which distends the vitreous humour. This fluid—serum—is derived mainly from the choroid, the retina being only passively concerned; so that glaucoma might be considered a serous choroiditis. Mr. Hancock has advanced the theory that spasm of the ciliary muscle forms an essential part of glaucoma. Mr. Hulke had, however, found complete atrophy of this muscle in dissections of glaucomatous eyes; hence the inference that this muscle is not concerned in maintaining the glaucomatous condition. He had been unable to trace any connection between glaucoma and gout or rheumatism. Some other diseases and injuries of the eyeball occasionally assume a glaucomatous type. This is especially the case with wounds of the ciliary region and sclerotico-choroidal staphyloma.

Treatment. Generally, the age and broken health of the subjects of glaucoma forbid antiphlogistics; venesection is inadmissible; leeches and counterirritants are useful as adjuncts, but cannot alone cope with the disease. The excessive tension of the globe is suggestive of the evacuation of some of the superabundant fluid by tapping. The old surgeons, Antonius Nerck, Jobus à Meckren, and others, were familiar with this operation, but they practised it chiefly in hypopion, onyx, and hydrophthalmos. Wardrop (*Med.-Chir. Trans.*, 1813) tried it extensively. With a view to lessen fulness and congestion, he tapped the anterior chamber in superficial and deep seated inflammations of the eye. The operation was at first warmly taken up by other surgeons, but soon fell into disuse. In our own day it has been strongly advocated by Desmarres, but it has found little favour with English surgeons, though most have occasionally performed it. In glaucoma, the relief that paracentesis corneæ affords is too transient to render it of much value. Paracentesis scleroticæ has been practised by Desmarres and Hancock in glaucoma, though with different objects. Mr. Hulke reverted to this, after describing the operation of iridectomy as proposed by Dr. A. von Gräfe.

Iridectomy consists in excising a segment of the iris, in its whole breadth, from the pupillary margin outwards to its insertion. This is effected through an opening of corresponding size at the extreme edge of the anterior chamber. Iridectomy may be practised at any part of the iris. Gräfe usually makes it outwards; but adds that, when desirable, for the sake of appearance, it may be made upwards. This latter position has been adopted by Mr. Bowman, and is that which Mr. Hulke has generally chosen. By removing the iris in this manner, the pupil is at once enlarged up to the corneal incision, which forms, as it were, the base of a coloboma iridis, and the edge of the lens, with the suspensory ligament, stretching in front of the vitreous humour and the ciliary processes, are exposed to view. The little blood which oozes into the anterior chamber from the cut edges or surface of the iris, should be at once pressed out or removed with a scoop. The after-treatment is very simple. A light compress may be applied for a short time as a precaution against hæmorrhage. This may be replaced after an hour or two by a piece of wet rag. The room should be shaded. Usually, nothing else is necessary. At first, the aqueous humour trickles away; but the corneal wound soon heals, and the anterior chamber fills again. The hardness of the eyeball is at once lessened, and a natural tension is gradually attained; the pain abates, and soon altogether disappears. As regards vision, the ultimate results are intimately dependent on the period at which the iridectomy is performed, being more perfect where it has been early undertaken than where it has been postponed. In the premonitory period, where the symptoms are well marked, the propriety of operating cannot be doubted. In acute glaucoma, where the operation is done during the first inflammatory attack, or soon afterwards, vision is very completely restored. In chronic glaucoma, the results are less uniform and less decided. This is in consequence of the insidious nature of the disease—structural changes in the retina creeping on *pari passu* with the gradually increasing tension.

Alleged Objections to Iridectomy. 1. Its *reported* uniform failure in the hands of some surgeons. This is in great probability to be generally attributed to its having been practised in cases which were not true instances of this disease. Many failures have proceeded from its having been done at far too late a period.

2. The great difficulty of the operation. This has been much magnified. It does not require more skill than most surgeons possess, and when chloroform is used, it becomes really a simple matter; but even were it difficult, which it is not, in the absence of other known means of cure, we should be no more justified in rejecting it on this account, than we should be in refusing a patient the benefit of herniotomy where the taxis and other measures had failed.

3. The disfigurement produced by the coloboma iridis is so slight that it cannot constitute a real objection.

4. Its supposed injurious action on accommodation. Further experience has corrected some mis-impressions which at first prevailed respecting its influence on the adjustment of the eye. The previously existing presbyopia is not increased by removal of a portion of the iris; indeed, the refracting power of the globe sometimes actually increases after iridectomy—probably, as Von Gräfe has shown, in consequence of the flattened cornea resuming its natural curvature.

To avoid these alleged disadvantages, paracentesis scleroticæ has been advocated by Middlemore, Desmarres, and Hancock, as a substitute for iridectomy. Middlemore proposed to evacuate the *turbid, diffluent, vitreous humour* with a grooved needle, and to replace it with a syringeful of clear water. But, except in very old cases, the vitreous humour is much too firm to flow out along a grooved needle; and probably few English surgeons would adopt Desmarres' suggestion, of introducing a probe and breaking it up. Mr. Hancock, considering a spasm of the ciliary muscle to be an essential part of glaucoma, divides this muscle by striking a knife through the ciliary region backwards and inwards towards the axis of the globe. But Mr. Hulke had demonstrated, by microscopical examination, advanced atrophy of this muscle in many glaucomatous eyeballs; whence it follows that the ciliary muscle is not actively concerned in maintaining the glaucomatous process. In all probability, the success of Mr. Hancock's operation is solely due to the draining away of some of the superabundant fluid. According to this view, it is simply a peculiar mode of paracentesis, and cannot rank as a substitute for iridectomy until it has been thoroughly established that it *permanently* relieves excessive intraocular tension, which, in common with most surgeons, Mr. Hulke had found that tapping the vitreous humour fails to do.

Editor's Letter Box.

POOR-LAW MEDICAL REFORM.

Letter from Richard Griffin, Esq.

Sir,—I must again ask the favour of your allowing me, through the medium of your pages, to address the Poor-law medical officers. Since my last communication, I have received a letter from Mr. Pigott, who states that he had met with difficulty in getting the Bill drawn, as he did not wish to incur an expense of £20. I was obliged to fix a limit to the amount for which I should render myself liable. The Poor-law medical officers must therefore blame themselves for the loss of the Bill this session; for, had they enabled me to give a *carte blanche* to Mr. Pigott, the Bill would have been speedily drawn. The only subscriptions, however, which I have received this month have been 10*s.* 6*d.* from a Poor-law medical officer, and 10*s.* from a medical gentleman unconnected with the Poor-law; and, in the previous month, I received less than £3.

Mr. Pigott concludes his letter by saying, "I fear I must follow the advice generally given me by my friends; namely, to lay a good Bill on the table this session, and then work it through next. I like the principle of the Bill," etc.

I regret the apathy of the Poor-law medical officers as a body, though I can quite understand the motives that influence many of them. I have ascertained each Poor-law medical officer's salary under the present *régime*, and have calculated what it would be under the proposed plan. I have also ascertained the number of patients attended by each medical officer;

and when I state that there are three hundred and sixty medical officers who attend fewer than fifty patients each annually, and that as many of these officers have as much or more than twenty shillings for each case they attend, it will not be surprising that they are either indifferent or adverse to the proposed change. Again, there are ninety-four medical men who have more than 1,500 patients annually under their charge; some of these attend from 2,000 to 5,000 each; and one has upwards of 10,000 patients. Some of these gentlemen object to the proposed limit of 1,500 patients; and one has written to me, "that many of the London men will oppose the Bill, unless that clause be withdrawn". The old adage, "Every one for himself," is here verified. To please all is impossible. The variations between these extremes may be interesting to your readers. Five hundred and five medical men attend between 50 and 100 patients each annually; seven hundred and forty-four, between 100 and 200; five hundred and ten, between 200 and 300; five hundred and forty-eight, between 300 and 500; four hundred and forty two, between 500 and 1,000; and one hundred and seventy-six, between 1,000 and 1,500. On a future occasion, I will lay before your readers a continuation of my calculations, if you will kindly allow me to do so; though you, perhaps, like my colleagues, may be tired of the subject. If so, I must succumb to the fate which many wiser men than myself have before experienced.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, July 21st, 1860.

COMPARATIVE EXPENSES OF PROVINCIAL HOSPITALS.

LETTER FROM CHARLES B. RENDLE, ESQ.

SIR,—In this week's JOURNAL there is a valuable tabular arrangement, drawn up by Dr. T. Inman, of the expenditure in the several provincial hospitals; but it contains one or two inaccuracies in reference to our own, which, with your kind permission, I will correct.

In the third column, specifying the average number of out-patients, I find the word "none" put interrogatively (*Sic*, None?). Now, our Annual Report (of which I enclose a copy) mentions 611 out-patients during the past year. This number does not include those who, having at first been in the hospital, are afterwards made out-patients. I find that the average weekly attendance of out-patients is 150; the average number of in-patients is 175; thus making a total of 325.

In the fifth column, our drug expenditure "for out and in patients per 100 *per annum*" is stated to be £308; whereas our entire drug bill for the past year only amounted to £306 : 10 : 11, which would give an average expenditure per 100 in and out patients of £94 only.

In making these corrections, I must, in fairness to Dr. Inman, state that these errors are due to his misconception of the arrangement of our annual statement, which does not mention the *average* number of out-patients; and in which there has been mixed up with the drug bills the sum of £233 : 8 : 1 spent for instruments and bandages. This large expenditure is due to the fact that we supply trusses and instrumental support to a large agricultural area. I am, etc.,

CHARLES B. RENDLE, *House-Surgeon.*

Devon and Exeter Hospital, July 23rd, 1860.

THE DIAGNOSIS OF POST MORTEM CRANIAL ECCHYMOSIS.

LETTER FROM A. C. GIBSON, ESQ.

"SIR,—Will you oblige me with space in your columns for the following queries, and, in subsequent numbers, for the replies which I hope they may elicit from some of our associates. I am, etc., ALEXANDER CRAIG GIBSON.

Bebington, Birkenhead, July 16th, 1860.

1. Ecchymosed patches on the pericranium and under the surface of the scalp are said to be not uncommon *post mortem* appearances in cases of death from sanguineous apoplexy. Is it possible, on removing the scalp, to discriminate with certainty between the appearances presented by such ecchymoses and those of a contusion received before death; no marks of external injury being noticed?

2. If possible, is such discrimination difficult?

3. In an autopsy performed on a female subject, aged 32, in which decomposition was, for the period (the fifth day of the death), unusually advanced, the scalp was turgid and ecchymosed generally with thin fluid blood, and externally so much discoloured as to render any marks upon the skin undiscernible, if they existed. What were considered by the surgeons making the examination indications of contusion, were found, in removing the scalp over the left temporal ridge—viz., the lining of the scalp darker than elsewhere; small coagula immediately under it, with more minute coagula infiltrating the cellular tissue; the whole of the tissues there being distended and *thickened* by circumscribed extravasation; so that considerable tumefaction, probably concealed by the remarkably abundant hair, must have existed there prior to the occurrence of the general œdema of decomposition and the diffused *fluid* ecchymosis already mentioned within the cranium at the same point. The surface of the left hemisphere of the brain exhibited a circular sanguineous stain, the inner anterior quarter of which was covered by a clot of blood forming part of a very large coagulum lodged principally between the hemispheres. The brain and its membranes otherwise healthy; no red points in the substance; no blood in the larger vessels, and no fracture of the skull. The third and most important question is, Do these appearances, in the absence of any proof or even suspicion of violence, lead to the inference that the effusion of blood on the brain was the result of external injury, or otherwise?

I may add, that the subject was pregnant, and close upon the full period; was seen about an hour before death by one of the practitioners who conducted the autopsy; and that he certified the cause of death to be *apoplexy*, changing his opinion when the head was opened. A. C. G.

THE ESSENTIAL NATURE OF ASTHMA.

LETTER FROM H. HYDE SALTER, M.D., F.R.S.

SIR,—In the able review of my work *On Asthma*, which you published in the BRITISH MEDICAL JOURNAL for June 2nd, you notice a discrepancy in the statement of my views as to the absolute nature of that disease. The discrepancy there referred to really exists; and I would wish to correct it, and explain what my exact views are, as the error is of material import, and might give rise to misapprehension.

After quoting my statement that "the peculiarity of the asthmatic essentially consists in a morbid proclivity of the musculo-nervous system of the bronchial tubes to be thrown into a state of activity," your reviewer proceeds thus: "There seems to us to be a little obscurity at this part, on one point. At page 57, Dr. Salter recognises in asthma a morbid activity of the natural endowment of the muscular furniture of the bronchial tubes to contract under certain circumstances; and, on the application of certain stimuli, '*the irritability of the muscle is exalted*'; so that he here appears to attribute asthma to exaggerated tendency in the muscle itself to contract. But at p. 59 he says, 'There is probably no peculiarity in the irritability of the bronchial muscle; the peculiarity is confined to *the nervous system* (the link that connects the stimulus applied and the muscle), and consists in its perverted sensibility, in its receiving and transmitting to the muscle that of which it should take no cognisance'. That the latter, however, is in reality his opinion, is shown by the propositions which we just now enumerated, and from some observations in the twelfth chapter."

When I say that the irritability of the muscle is exalted, I do not mean that there is any inherent change in the muscle itself; that, the nervous stimulation being the same, the muscle is more disposed to contract; and if my expression can only mean this, then I simply do not mean what I express. What I mean is, that the muscle is unduly irritable, because it is unduly irritated. I believe that the derangement is always primarily nervous, and that the muscular contraction is a secondary, though an inevitable and immediate phenomenon.

Doubtless there are two ways (which I have not mentioned in my work), as indicated to me by my friend Dr. Brown-Séquard, in which bronchial spasm, when once established, may be kept up by the very conditions which it generates; one is, the power which carbonic acid gas possesses of producing contraction in smooth muscle. In asthma, the deficient standard at which respiration is carried on, and the diminished interchange of the gases, produces an accumulation, in the air locked up in the air-passages, of carbonic acid to an unusual degree. This, by the action to which I have just referred, sets the bronchial muscle still further contracting, and thus increases the very condition which at first caused the accumulation of the effete gas. In this way, asthma keeps up asthma. The

other way is by the bronchial spasm stimulating the afferent or perceptive nervous filaments, and thus giving rise to reflex muscular contraction; just as the stimulation of the sensitive roots of the spinal nerves produces reflex muscular phenomena in the parts to which the corresponding motor nerves are distributed. In this way, muscular spasm becomes a stimulus to muscular spasm.

"But in both these, as in the other ways I have indicated in my book, the bronchial spasm is secondary to an antecedent nervous condition. I am, etc., HYDE SALTER.

Montague Street, Russell Square, July 19th, 1860.

THE SOCIETY OF APOTHECARIES.

LETTER FROM CHARLES MAYO, ESQ.

SIR,—Towards the end of last week, I observed in our JOURNAL the leading article on the proceedings of the Medical Council. The first paragraph relates to the expunging of certain unqualified practitioners from the *Register;* the second, in a tone approaching to exultation, speaks of a motion or resolution of the Council that "the London Apothecaries' license is not necessary to qualify for appointments to professional offices"; and that this motion was carried, notwithstanding the opposition of Mr. Nussey, the "champion of Water Lane". The third paragraph says, "This is the first direct blow dealt by the Council against this trading company. Unfortunately, however, the Council has not the power of dictating to English medical institutions the qualifications they shall accept or reject." Mr. Nussey could not do otherwise than protest against this resolution, confessedly contrary to a law which was instituted to protect the country against the inundation of Irish, Scotch, continental, and American graduates, who, if their qualifications were good for anything, could not object to submit them to the much despised ordeal of the Court of Examiners at Apothecaries' Hall.

Upon reading this article, I could not but recollect that, some years ago, I had taken the trouble to remonstrate upon the sneering and disrespectful tone in which the Apothecaries' Company was spoken of in the PROVINCIAL or ASSOCIATION JOURNAL, and resolved, if nobody else noticed it in this week's JOURNAL, that I would hunt up my letter to the editor on that occasion. I have now found it in the first volume for 1856, page 294; and appended to it is the disavowal of the conductors of the JOURNAL of any intention to sneer at the Apothecaries' Company, but rather to praise them, etc. I request my fellow-associates to reperuse this letter, and would gladly inquire what has since happened which should induce the present editor to indulge in such apparent spite against the Company. Their Hall is generally described as situated in Blackfriars, and not far from Doctor's Commons and St. Paul's; but Mr. Nussey is described as the "champion of Water Lane". This, no doubt intended as a reproach, may be metaphorically applied, as accounting for the flourishing of our Society, as "a tree planted by the water-side", and accords with our motto, "Opiferque per orbem dicor". Now, many of us remember the College of Physicians in a much more obscure corner on the other side of Fleet Street, in Warwick Lane, and within reach of the salubrious vapours from Newgate Market. Where the Barbers' Company had a hall, I forget; but it is evident that the Apothecaries could not migrate towards the West without leaving behind them the substantial buildings and other valuable appurtenances of their trade; and this, forsooth, is pointed out by our editor as a grievance not to be tolerated by those who are required to obtain their license to practise by passing the ordeal of examination at their monthly courts. Let me, however, comfort this apparently newly fledged editor, by assuring him that candidates for examination are not required to trouble themselves with the trading department of the Company, who lent their Hall and other conveniencies for a Court of Examiners, in a most patriotic spirit, at a period when every other body connected with the profession refused to institute any such Board; and even now, after the formation of the Medical Council, they are in a measure compelled to proceed with their labours, for which they are justly entitled to the best thanks of the profession and the public at large; so that, with a consciousness that they have not sought any aggrandisement of their trade from this source, they can well afford to endure the "kicks" of our editor, and the more formidable, though, in my opinion, unjust and impolitic "blows of the Medical Council".

I am, etc., CHARLES MAYO, F.R.C.S.E.,
Senior Surgeon to the Hants County Hospital, &c.

Winchester, July 10th, 1860.

Parliamentary Intelligence.

HOUSE OF LORDS.—Monday, July 23rd, 1860.

Criminal Lunatic Asylums Bill.—This Bill was read a third time, and passed.

Nuisances Removal and Diseases Prevention Bill.—Earl GRANVILLE moved the second reading of this Bill, which he explained was intended to remove certain evils in the existing law, principally by way of improving the machinery for carrying the law into effect.

The Bill was read a second time.

Tuesday, July 24th.

Nuisances Removal and Diseases Prevention Bill.—This Bill passed through Committee.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Of sons, the wives of—

BLACK, Robert J., M.D., at 6, Amelia Place, Southgate Road, on July 19.

WILLIAMS, D. J., M.D., of Queenscliff, Geelong, at Nicholastone, near Swansea, on July 17.

Of daughters, the wives of—

CANNON, Henry M., M.D., Surgeon Bengal Army, at Cheltenham, on July 17.

COOPER, G. F., M.D., New Brentford, on July 22.

HACON, Edward D., Esq., Surgeon, Hackney, on July 22.

MARRIAGES.

FARQUHAR, Thomas, M.D., Bengal Army, to Charlotte, daughter of the late Captain A. S. FISHER, 72nd Highlanders, at Pennington, on July 18.

*GRAHAM, Charles W., M.D., of Dalkeith, to Louise, eldest daughter of Major DEICHMANN, Hanover, at St. Anne's, Wandsworth, on July 18.

HELSHAM, Hector, M.D., Yarmouth, to Amelia, fourth daughter of John CLARK, Esq., R.N., Hurstpierpoint, on July 18.

MACROBIN, John, M.D., Professor of Medicine in the University of Aberdeen, to Eleanor I., eldest daughter of the late Christopher CATSE, Esq., of Easingwold, on July 24.

NORTON, Edmund P., Esq., Lowestoft, to Hester S., third daughter of William C. WORTHINGTON, Esq., Surgeon, of the same place, at Hampstead, on July 12.

PARROTT, the Rev. R., youngest surviving son of John Parrott, Esq., Surgeon, Clapham, to Harriet E., only child of *Wm. MCNAB, Esq., of Ware, on July 24.

TEBAY, Thomas G., M.D., of Warwick Terrace, S.W., to Charlotte, youngest daughter of the late Robert WAYLEN, Esq., of Devizes, at St. Mary's, Hampstead, on July 18.

WALKER, Henry Read, Esq., Surgeon, of Louth, to Ann Maria, only daughter of the late William PYE, Esq., of Acacia Road, at St. Marylebone Church, on July 21.

DEATHS.

GAIRDNER. On July 24th, at Edinburgh, Mrs. Gairdner, the wife of John Gairdner, M.D.

GRAVES. On July 13th, at Gloucester, aged 11, Standish R., eldest son of R. W. Graves, Esq., Surgeon.

HILL, William J., Esq., Surgeon, at Wotton-under-Edge, aged 41, on July 22.

MOLINE, James P., Esq., Staff-Surgeon, at Cawnpore, aged 44, on June 17.

WALLIS. On July 20th, at Mayfield, aged 54, Harriett, widow of the late Michael Wallis, Esq., Surgeon.

APPOINTMENTS.

HOLDEN, Lather, Esq., elected Assistant-Surgeon to St. Bartholomew's Hospital, in the room of A. M. McWhinnie, Esq., resigned.

PRIESTLEY, W. O., M.D., appointed Lecturer on Midwifery at the Middlesex Hospital.

PASS LISTS.

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at a meeting of the Court of Examiners, on *July 20th*:—

ATKINSON, Wm., Wallingford
BEAMAN, E. H., Up Holland, near Wigan, Lancashire
BYERS, Robt., Pateley Bridge, Yorkshire
CRUISE, F. R., Dublin
DEYNS, F., North Walsham, Norfolk
GRIGG, N. Batt, Salisbury
HARPER, Henry Lewis, St. Luke's Hospital
KINGDON, A. S., Bideford
MAJOR, E. Wm., Exeter
I'ANSON, Thos., Newcastle-on-Tyne
SHAW, B., Cambridge Road, Bethnal Green
WILSON, J. Lodge, Nottingham

APOTHECARIES' HALL. LICENTIATES admitted on *Thursday, July 12th*, 1860:—

SHERWIN, Henry C., Pulborough

The following gentlemen also, on the same day, passed their first examination:—

BROOK, Charles, Lincoln
CRESSWELL, Nathaniel E., St. Mary's Hospital
DAVY, H., St. Mary's Hospital
DAWSON, Richard, University College
GRIFFITHS, Thomas, University College
HOWELL, Horace S., St. Bartholomew's Hospital
JONES, John T., University College
MISKIN, George A., St. Thomas's Hospital
NEATLEY, Thomas, Barnsley
ROBERTS, Frederick T., University College
SCOTT, Nathaniel G., St. Bartholomew's Hospital
SHONE, Richard L., University College
WOLLASTON, Thos. G., King's College

THE INTERNATIONAL STATISTICAL CONGRESS. Among the communications having a professional bearing, made at the recent meeting of this Congress in London, was one in the section of Sanitary Statistics, describing a plan for registering and tabulating the statistics of hospitals. After discussion and additions, it was agreed to. The forms have been already tried in several hospitals; and the results have been sufficient to show how large a field for statistical analysis and inquiry will be opened by their general adoption. The object sought to be attained by these tables is a uniform record of facts, showing the total sick population, the number of cases of each age, sex, and disease submitted to treatment annually, the average duration of each disease, the mortality for each sex and age, and the proportion of recoveries. At the general meeting of the Congress on Friday week, Dr. Balfour reported the results of the discussion in Section VI, on "The Vital Statistics of the Army." He recommended that statistics should be carefully collected to show the influence of the seasons and of the various climates upon the men. He also recommended that there should be a return of the mortality amongst horses. Dr. Boudin read a paper on the same subject, in French, and specially dwelt upon the importance of paying attention to the condition of horses and military stables, not merely with a view to economy in saving the lives of the horses, but to the preservation of health amongst the men themselves. Mr. Hendriks read the English report of Section V, as to the "Best Method of Taking the Census." The French report was read by M. Le Goyt. Dr. Farr eulogised the report in the highest terms; regretting, however, that one of his propositions, which was for taking the number and diseases of all sick persons on the day of the census, had been lost by a casting vote. Unless it would lead to a long discussion, he should like to have the proposition put to the general meeting, with a view to its being reinserted. After some discussion, the question was put by the President, and the reinsertion of Dr. Farr's proposition was carried by a large majority.

GRANTS TO THE LONDON HOSPITAL AND HOSPITAL FOR DISEASES OF THE CHEST. At the meeting of the Court of Common Council of London on Monday last, on the motion of Mr. Deputy Harrison, who presented a report of the coal, corn, and finance committee, of which he is chairman, the sum of £500 was granted in aid of the funds of the London Hospital, on the recommendation of the committee; as was also £105 to those of the City of London Hospital for Diseases of the Chest.

THE UNITED STATES PHARMACOPŒIA. The fifth decennial meeting of the National Medical Convention for Revising the *Pharmacopœia* of the United States took place at Washington City on the 2nd of May, when Dr. George B. Wood, President of the Convention of 1850, was reelected. After the election of the other officers, the Committee reported the attendance of delegates from the various medical and scientific bodies of the union, whose contributions towards a revision of the national *Pharmacopœia* were received and referred to a committee. A report was brought in by Dr. Bache, and adopted, one of the resolutions of which provided that there should be a committee of nine to revise and publish the *Pharmacopœia*; also, that three form a quorum, and that the place of meeting be in Philadelphia. A proposition of the New York College of Pharmacy was embodied in a resolution and carried:—"That in the index of the *Pharmacopœia* the syllables of both Latin and English names be so divided and accented that the index may also serve as a pronouncing vocabulary to the Materia Medica." The subject of weights and measures was introduced: Mr. Parrish advocated the making the avoirdupois ounce the standard; Mr. Taylor advised the abolishing of the troy and avoirdupois scales now in use, and substituting the grain as the unit for all weights less than a pound avoirdupois. He also proposed to do away with the Roman symbols, and use the common Arabic figures. Dr. Bache thought it better, for the sake of uniformity, to wait the action of the British Commission on the subject of the consolidation of the London, Edinburgh, and Dublin Pharmacopœias into a British *Pharmacopœia*, and see what was done there before they acted. The Committee of the Philadelphia College have recommended the addition of ninety-four new preparations, and the rejection of seven of those at present in the *Pharmacopœia*. The Committee will publish the work as soon as their labours are completed, but will wait its final completion for the publication of the British *Pharmacopœia*. (*Pharmaceutical Journal.*)

VACCINE REGULATIONS IN PHILADELPHIA. The new ordinance in relation to vaccine physicians, recently adopted in Philadelphia, introduces several useful changes. By it the Board of Health, instead of Councils, are to appoint such physicians, one for each ward, and to supervise them also—a duty hitherto discharged by nobody. The physicians themselves are to hold their office for one year, unless removed by the Board of Health; are to vaccinate every person applying, and to keep on hand and furnish gratis to all physicians who wish it, a supply of vaccine matter. Their salary, instead of a fixed sum, is to be fifty cents for each case successfully vaccinated, but is not to exceed fifteen dollars per quarter. The ordinance contains many minor provisions in relation to the mode of performing their duties, the reports to be made to the Board of Health, a summary of which is to be published, and the appointment and duties of the collectors of vaccine cases. (*Medical and Surgical Reporter*, July 7th.)

INSPECTORSHIP OF SLAUGHTER-HOUSES. At the meeting of the City Commissioners of Sewers on Tuesday, the committee on general purposes report that Dr. Letheby had, at their request, prepared certain suggestions as to the duties of the inspector of slaughter-houses, a new public office about to be created for sanitary purposes. It is proposed that this functionary shall act under the instructions of the medical officer of health; and among his duties, which are multifarious, he is to keep a list of all the registered slaughter-houses in the City, and to visit and inspect each of them at least once a week, and to see that the rules and regulations for their management are duly observed. He is likewise to inform the medical officer of health of any place used as a slaughter-house without being registered as such. He is to visit the meat markets of Newgate, Whitechapel, and Leadenhall daily, and shops when necessary. He is especially to visit Leadenhall Market on the market-days of Tuesday and Friday, to inspect the condition of the raw or undressed hides exposed for sale, to give official notice when any such hides are in a putrid or offensive state, and to make a weekly return of the time when the hides are removed from the market. He is also to furnish the medical officer every Saturday with a tabulated statement of the particulars of the meat seized and destroyed, the weight thereof, and the names of the persons from whom it is taken. Every cowhouse in the City is also to be under his regular inspection and control for sanitary purposes. The court passed a resolution defining the age of this officer to be not less than 30 and not more than 45; and at a future meeting they will make an election from among the candidates that may present themselves.

HEALTH OF LONDON—JULY 21ST, 1860.

[*From the Registrar-General's Report.*]

		Births.	Deaths.
During week	Boys.. 809 / Girls.. 827	1636	975
Average of corresponding weeks 1850-9		1530	1156

Among the causes of death were—bronchitis, 49; pneumonia, 40; phthisis, 133; small-pox, 11; scarlatina, 32; measles, 51; diphtheria, 4; hooping-cough, 30. The deaths from pulmonary diseases (exclusive of phthisis) were 107, being 13 above the corrected average.

Barometer:

Highest (Mon.) 29·771; lowest (Th.) 29·552; mean 29·682.

Thermometer:

In sun—highest (Wed.) 121·0 degrees; lowest (Mon.) 72·0 degrees.

In shade—highest (Tu.) 75·0 degrees; lowest (Wed.) 50·2 degrees.

Mean—59·0 degrees; difference from mean of 43 yrs.—2·6 degrees.

Range—during week, 24·8 degrees; mean daily, 17·2 degrees.

Mean humidity of air (*saturation* = 100), 86.

Mean direction of wind, S.W.—Rain in inches, 0·83.

TO CORRESPONDENTS.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

ANONYMOUS CORRESPONDENTS should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

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Communications have been received from:—MR. R. W. TAMPLIN; DR. C. R. HALL; DR. P. H. WILLIAMS; DR. SKINNER; DR. INMAN; MR. C. B. RENDLE; MR. H. WALTON; MR. CRAIG GIBSON; DR. G. M. HUMPHRY; MR. T. W. NUNN; DR. LIONEL BEALE; MR. T. L. PRIDHAM; MR. SHAW; MR. ERICHSEN; DR. E. SMITH; DR. WATERS; and MR. T. M. STONE.

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